The pet population has steadily grown in the US and included approximately 77 million dogs and 58 million cats in 2016. In 2018, about two-thirds of American households owned ≥1 pet, with millennials representing the largest segment of pet owners. Ample evidence has been published about the positive impact that interactions with companion animals have on the physical and mental health of children, adults, and seniors. Therefore, improving the health and well-being of pets benefits society, including citizens of all socioeconomic backgrounds. Nonetheless, a study reports that 1 in 4 pet households (1,577/5,652 [28%]) experiences barriers to veterinary care. The main obstacle identified in that 3-year study was financial restraints. Interestingly, households with lower incomes were more likely to own several pets, compared with households with higher income levels. Other challenges identified in that study related to the lack of transportation means.

For nearly a decade, the use of telehealth services has been proposed as a strategy to facilitate access to veterinary care in underserved communities and populations without access to comprehensive health care. Telehealth “encompasses all uses of technology to deliver medical information, education or care remotely” and includes subcategories such as teleadvice, teletriage, and telemedicine. Telemedicine is a subcategory of telehealth that involves the digital exchange of information regarding a patient’s health within an existing veterinarian-client-patient-relationship (VCPR). The progress of veterinary telemedicine has lagged behind that of its counterpart in human medicine because of unique challenges, such as the inability of veterinary patients to describe their ailments, legal requirements related to VCPRs, unclear scope of application, business implications, and lack of familiarity. Indeed, approximately 36% (27/76) of the veterinarians who responded to a survey in 2019 reported that they either never (n = 15) or hardly ever (12) used telehealth or telemedicine.

The COVID-19 pandemic intensified barriers to veterinary care because of public health-related so-
cial distancing and stay-at-home orders. Many veterinary offices implemented protocols to limit direct interactions between pet owners and their staff.\textsuperscript{13} Results of a large-scale survey\textsuperscript{14} of US pet owners in 2020 confirmed concerns over access to veterinary care during the pandemic. In that survey,\textsuperscript{14} pet owners reported difficulties obtaining veterinary care, especially for pets with chronic conditions, because safety protocols forbade owners from accompanying their pets during appointments. Because of changes in veterinary service delivery, even resourceful owners faced new barriers accessing veterinary care during the COVID-19 pandemic.\textsuperscript{14}

Another consequence of the COVID-19 pandemic on veterinary medicine involves the potential bidirectional zoonotic transmission of the SARS-CoV-2 virus between animals and people and potential transmission between animals. The fear of transmission across species seems to have begun in February 2020, when signs consistent with COVID-19 were noted in 5 Siberian tigers and 3 African lions housed at the Bronx Zoo in New York City.\textsuperscript{15} On April 22, 2020, the CDC and USDA reported 2 domestic cats with confirmed infection with the SARS-CoV-2 virus.\textsuperscript{16} One month later in Hong Kong, 2 of 15 dogs from households with humans confirmed to have had COVID-19 tested positive for the SARS-CoV-2 virus but showed no clinical signs.\textsuperscript{17} Relatedly, a study\textsuperscript{18,19} finds that cats (versus dogs) are more susceptible to SARS-CoV-2 virus infection. Evidence points to viral transmission from human carriers to cats,\textsuperscript{20} and the CDC issued guidelines\textsuperscript{21} that may influence interactions between owners and their pets. In a recent survey,\textsuperscript{14} 283 of 2,254 (13%) respondent pet owners expressed concerns over disease transmission, whereas 556 (25%) reported concerns related to their ability to meet the social and behavioral needs (eg, outdoor walks) of their pets. Such limitations may cause behavioral issues in pets and lead to their relinquishment.\textsuperscript{14}

Our overall objective was to gather and evaluate veterinarians’ perspectives about the impacts of the COVID-19 pandemic on the use of veterinary telehealth and on cat owners’ versus dog owners’ attitudes toward transmission of the SARS-CoV-2 virus from their pets. We hypothesized that the number of veterinary practices offering telemedicine increased from before the onset of the pandemic (March 15, 2020, for the study) to June 15, 2020. We also hypothesized that veterinarians would have more frequent client interactions because of COVID-19 pandemic-related concerns for cats versus dogs, given that cats have a higher susceptibility to the SARS-CoV-2 virus.

Materials and Methods

Sample
All investigators were trained in conducting research involving human subjects, and this study was approved by the Institutional Review Board of the Western University of Health Sciences (Protocol No. 1616277-1). The Western University of Health Sciences College of Veterinary Medicine database was searched for records of practicing veterinarians offering clinical rotations in small animal veterinary medicine for third- and fourth-year veterinary students from the Western University of Health Sciences College of Veterinary Medicine. Veterinarians identified through the search were invited to participate in the survey.

Survey
An online survey instrument (Supplementary Appendix 1) was created (Qualtrics; Qualtrics LLC) and consisted of 21 questions regarding respondents’ practice demographic data (eg, state, zip code, primary care vs specialty practice, and number of full- and part-time veterinarians), caseloads (eg, change in caseloads for dog or cat patients [canine or feline caseloads, respectively]), the use of client-facing telemedicine before and during the pandemic (eg, modality [eg, telephone, videoconferencing, and mobile applications] and type [eg, e-prescription, teletriage, and telemonitoring] and rankings of use, scope, challenges and complications, benefits, and client feedback) and human-animal bond–related concerns (eg, discussions with clients concerned with potential zoonosis of the SARS-CoV-2 virus or COVID-19 pandemic-related surrender of animals). Definitions for teleadvice, telemedicine, e-prescription, teletriage, and telemonitoring (Table 1) were included in the survey. Questions in the survey included categorical (single or multiple) and free-text response options. Veterinarians identified through the database search were solicited through the use of an email invitation. The objectives of the study were shared with the recipients, and the recipients were informed that participation was voluntary, they would receive a gift card if they completed the survey, and completion was anticipated to take approximately 5 minutes. Each survey was administered through a secure online platform that required participants to click on the survey link for access. Invitations to participate in the survey were sent to individual veterinarians, regardless of the number of preceptors per practice. One reminder was emailed to nonresponders 2 weeks after the initial solicitation, and a final reminder was emailed 1 week later to participants who had started but not completed the survey.

Statistical analysis
Descriptive results were reported as proportions and percentages of the total number of responses for each question. A χ² test was used to compare the proportion of practices that offered telehealth services before versus after the onset of the COVID-19 pandemic. The zip code of each respondent was used to collect 2019 socioeconomic data from the US Census Bureau’s American Community Survey, including the number of households, percentage of households living below the poverty level (PPL), and the median household income (MHI). These variables were test-
ed for normality with Shapiro-Wilk and D’Agostino $K^*$ tests. The Kruskal-Wallis $H$ test was conducted to test differences in the MHI or PPL across respondents grouped on the basis of reported change in feline versus canine caseloads. A Spearman rank-order correlation coefficient test was conducted to determine whether there was a monotonic association between MHI or PPL and respondents grouped on the basis of their responses for client-facing telemedicine offered before versus after the pandemic onset, client concerns with pet transmission of the SARS-CoV-2 virus, or client surrender of pets. Values of $P < 0.05$ were considered significant.

**Results**

**Sample and demographics**

A link to the online survey was sent to 381 veterinarians in small animal practice across 34 states between June 15 and July 15, 2020. There were 93 completed surveys received between July 8 and August 20, 2020, and the data collected reflected circumstances respondents reported experiencing between March 15 and June 15, 2020. Two of the completed surveys were from respondents who worked at 4 specialty practices that employed several preceptors. These 2 surveys were included, as the respondents worked in different services and their answers differed. Respondents from western states were overrepresented (75/93 [81%]), including 57 (61%) from veterinarians in California, compared with those from eastern states (18/93 [19%]). Of the 93 respondents, 47 (51%) reported that they worked in primary care practices and 46 (49%) reported that they worked in specialty practices. Further, most respondents (49/93 [53%]) reported that they worked in practices with a monthly caseload of 101 to 300 cases/veterinarian, whereas the remaining respondents reported monthly caseloads of 301 to 500 cases/veterinarian (19/93 [20%]), > 500 cases/veterinarian (15/93 [16%]), or < 100 cases/veterinarian (10/93 [11%]). The caseload consisted predominantly of dogs for 58 of 93 (62%) respondents or cats for 9/93 (10%) respondents, whereas the caseload was equally distributed between dogs and cats for 26/93 (28%) respondents. For the US postal zip codes in which respondents reported working, the median number of households and MHI were 12,488 (range, 236 to 26,964) and $81,892 (range, $19,167 to $177,856), with a median of 11% (range, 2% to 35%) of households below the PPL, compared with the 2019 national poverty rate of 12.3%.

**Telehealth services**

Eleven of the 93 (12%) respondents reported that they worked in practices that offered telehealth services before the onset of the COVID-19 pandemic. The mean PPL was significantly ($P = 0.038$) lower in the zip code areas for respondents in practices that offered client-facing telemedicine service before the pandemic (7%; range, 3% to 17%), compared with practices that did not offer client-facing telemedicine service before the pandemic (11%; range, 2% to 35%). The proportion of respondents who indicated that their practice offered telehealth services was significantly ($P = 0.002$) higher for the period between March and June 2020 (35/93) versus before the pandemic (11/93). Of the 24 respondents who indicated that their practice started offering telehealth during the pandemic, 14 worked in zip code areas with a PPL > 10%. Disparity in PPL was not detected for areas served by practices that offered versus did not offer telemedicine services during the pandemic (between March 15 and June 15, 2020).

Also, most of the 35 respondents who indicated the use of telemedicine reported that their practice used several telehealth modalities (69 answers by 35 respondents); most commonly reported were telephone conversations (25/69 [36%]), videoconferencing (16/69 [23%]), or the use of mobile applications (11/69 [16%]), alone or in combination. Only 11 respondents reported the use of telehealth software. Respondents also reported multiple types of telehealth services offered (79 selections by 35 respondents; Table 1), and the most commonly reported

### Table 1—Numbers (and percentages) of various types of telehealth services offered in respondent’s practices as reported among 79 responses by 35 practicing veterinarians who provided telehealth services, offered clinical rotations in small animal veterinary medicine for third- and fourth-year veterinary students from the Western University of Health Sciences College of Veterinary Medicine, and completed an online survey conducted between June 15 and July 15, 2020, to gather information on veterinarians’ perceptions of COVID-19 pandemic–related influences on veterinary telehealth and owners’ attitudes toward their cats’ and dogs’ transmission of the SARS-CoV-2 virus.

<table>
<thead>
<tr>
<th>Telehealth service</th>
<th>Definition provided in the survey</th>
<th>No. (%) of responses (n = 79)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teleadvice</td>
<td>Provision of any health information, opinion, guidance or recommendation concerning prudent future actions that are not specific to a particular patient’s health, illness, or injury.</td>
<td>23 (29)</td>
</tr>
<tr>
<td>Telemedicine</td>
<td>Exchange medical information electronically from one site to another to improve a patient’s clinical health status.</td>
<td>19 (24)</td>
</tr>
<tr>
<td>E-prescription</td>
<td>Digital-based electronic generation, transmission, and filling of a medical prescription.</td>
<td>12 (15)</td>
</tr>
<tr>
<td>Teletriage</td>
<td>Assessment and management (immediate referral to a veterinarian or not) of animal patients via electronic consultation with their owners.</td>
<td>16 (20)</td>
</tr>
<tr>
<td>Telemonitoring</td>
<td>Remote monitoring of patients. This could include the use of a wearable monitoring device that captures the patient’s vital signs and other behaviors.</td>
<td>5 (6)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>4 (5)</td>
</tr>
</tbody>
</table>
were teleadvice, teledermatology, and teletriage. The types of issues managed through the use of telemedicine services most commonly ranked first by respondents were dermatology (n = 9), triage or emergencies (8), gastrointestinal signs (5), and behavioral issue (5; Table 2). Issues related to oncology or cardiology were ranked by respondents as the least commonly addressed through telemedicine services.

Twenty respondents reported challenges encountered while implementing client-facing teledermatology, with the most common challenges related to technology (n = 6) and client interest (5). The challenge category of acceptance and training of personnel was ranked as the most substantial challenge by only 1 respondent but ranked second for 8 respondents. The reported financial impact of teledermatology seemed variable because revenue loss, as a challenge category, was ranked most important by 5 respondents and least important by 4 respondents.

Twenty-one respondents answered the survey question on perceived benefits of client-facing teledermatology, and the benefit most commonly ranked first by respondents was safety (n = 10), followed by positive feedback from clients (8) and efficiency (5). Aside from ranking, overall response selection was similar between positive feedback from clients (n = 8) and efficiency (5). For positive outcomes of client-facing teledermatology, respondents selected the answer of positive feedback from clients equally, as they selected the answer of efficiency. Nineteen respondents answered the survey question on complications encountered while implementing telemedicine, and the most commonly ranked first by respondents was delayed treatment (n = 7), followed by advice or triage affecting patient health (3). No respondent ranked patient death or client loss among complications.

**Caseloads and owners**

For the period between March 15 and June 15, 2020, 52 of 88 (59%) respondents reported increases in canine caseloads per month, and 49 of 90 (54%) of respondents indicated increases in feline caseloads per month. In contrast, 0% to 20% reductions in feline or canine caseloads per month were reported by similar proportions of respondents (26/91 [29%] and 24/88 [27%], respectively). Seven respondents reported a drop > 40% in feline caseloads, compared with 2 respondents who reported the same reduction in canine caseloads. No differences in Census Bureau data for MHI or PPL were detected for respondents grouped on the basis of reported change in feline versus canine caseloads. New patients that were cats or dogs adopted during the COVID-19 pandemic were reported by most respondents with fairly equal frequency (66/91 [73%] and 68/89 [76%], respectively). Although owner concerns about potential SARS-CoV-2 virus transmission from their cats or dogs were reported by 47 of 88 (53%) and 48 of 84 (57%) respondents, respectively, only 10 respondents reported discussions with clients regarding the potential surrender of their pets, equally distributed between respondents’ answers for cats (n = 5) versus dogs (5). Only 4 and 2 respondents indicated that they had tested dogs or cats, respectively, for the SARS-CoV-2 virus; none tested positive for the virus. No differences in Census Bureau data for MHI or PPL were detected for respondents grouped on the basis of whether they reported dog or cat owner concerns for SARS-CoV-2 virus transmission from their pets.

**Discussion**

Results of the survey indicated that the number of respondents’ practices offering teledermatology tripled between March and June 2020 during the COVID-19 pandemic. These findings supported our hypothesis that the number of veterinary practices offering teledermatology increased from before the onset of the pandemic to summer 2020. Additionally, most respondents reported increased caseloads of dog and cat patients, including new patients of each species,

<table>
<thead>
<tr>
<th>Types of issue</th>
<th>Rank*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage or emergency</td>
<td>1</td>
</tr>
<tr>
<td>Dermatology</td>
<td>2</td>
</tr>
<tr>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>4</td>
</tr>
<tr>
<td>Gastrointestinal signs</td>
<td>5</td>
</tr>
<tr>
<td>Respiratory signs</td>
<td>6</td>
</tr>
<tr>
<td>Behavior</td>
<td>7</td>
</tr>
<tr>
<td>Neurology</td>
<td>8</td>
</tr>
<tr>
<td>Oncology</td>
<td>9</td>
</tr>
<tr>
<td>Cardiology</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
</tr>
</tbody>
</table>

*The values indicate the numbers of respondents who assigned the rank specified for the column to the type of issues indicated for the row. For example, 9 respondents ranked dermatology as the most common type of issue managed with telemedicine, including telemonitoring.
during this period. Although most respondents reported having had been faced with clients’ concerns regarding SARS-CoV-2 virus transmission from their pets, the concerns seemed equally shared by owners of cats versus dogs and rarely prompted discussions about owners considering the option to surrender. Our results provided no evidence to support our hypothesis that veterinarians would have more frequent client interactions because of COVID-19 pandemic-related concerns for cats versus dogs, given that cats have a higher susceptibility to the SARS-CoV-2 virus.

Preventive measures against the spread of COVID-19, including stay-at-home orders and social distancing, limited veterinary staff interactions with clients, leading to an expansion of telehealth services in veterinary medicine. The percentage of respondents who reported using telehealth services increased from 12% (11/93) to 38% (35/93) in 4 months during the early part of the pandemic, and this finding reflected the ability of veterinarians to respond and adjust to unprecedented circumstances. This adaptation was facilitated by state orders that waived some of the preexisting requirements of a VCPR that established restrictions on the use of telemedicine. For example, the California Department of Consumer Affairs waived, on June 4, 2020, the requirement for veterinarians to perform an in-person examination of animals to diagnose new medical conditions and communicate courses of treatment with clients when VCPRs had previously been established but for separate medical conditions. Such a change may have influenced our findings because our survey was deployed after this waiver was passed and because 57 of the 93 (61%) respondents practiced in California. However, the percentage of respondents who reported in our survey that they used telemedicine was similar to findings reported by the AVMA in its report on the impact of COVID-19 on veterinary practices. In contrast, 963 of 1,099 (95.4%) health centers that were funded by the Health Resources and Services Administration and surveyed between July 11 and July 17, 2020, reported providing telehealth services for human patients, especially in urban areas of the western and northeastern regions of the US. This expansion of telehealth practice in human medicine was also supported by new regulations, such as elimination of geographic barriers and improved reimbursement for telehealth services. The stronger adoption of telehealth services in human medicine, compared with veterinary medicine, may reflect a greater risk of transmission of the SARS-CoV-2 virus from human patients and demand for COVID-19-related care and resources combined with a sharper decline of in-person visits (approximately 50%, from 114.2 to 56.7 million office-based visits in the second quarters of 2018 and 2020, respectively) in human medicine.

Perceived advantages of veterinary telemedicine reported by respondents to our survey consisted mainly of safety and efficiency. Safety, as a response choice, was not defined in our survey and could have been interpreted in various ways, including as a low likelihood of adverse effects on patients’ health or low risk of transmission of the SARS-CoV-2 virus to staff. Nevertheless, these findings were intuitive and consistent with those reported in human medicine. In addition, respondents selected the answer of positive feedback from clients as much as they selected the answer of efficiency. When asked about challenges encountered while implementing telemedicine, respondents frequently selected the response of client interest. In a national survey conducted in May, June, and July 2020 (1,000 pet owners/time point), pet owners seemed most satisfied with conventional in-person visits (89% were very satisfied), compared with drop-off appointments (63%), phone calls (53%), or video chats (38%). Combined, these findings suggest that telemedicine generally satisfied owners during the pandemic but raise a question about long-term future application. Also, the application of telemedicine may remain more limited in veterinary medicine, compared with human medicine, because of an inability to communicate directly with the patient and reliance on in-person physical examination and diagnostic procedures to most accurately direct care.

In our study, findings indicated that telemedicine was mainly used for dermatology consultation, which reflected the high prevalence of skin conditions in pets, their relatively low risk of death, and the ability to assess the appearance of lesions remotely. The reported use of telemedicine for triage and urgent issues was consistent with such affected patients being prioritized for in-person visits, which were otherwise limited because of social distancing protocols. In addition, issues that generally required clinical examination (eg, orthopedic or neurologic signs), were potentially life-threatening (eg, respiratory signs), or were associated with factors unlikely to have been detected by owners (eg, oncological conditions) were less frequently managed remotely.

Only 19 of our respondents reported experiencing complications associated with telemedicine, mainly consisting of delayed treatment (n = 7). Respondents’ selection of delayed treatment could have been attributed to a higher caseload during the pandemic, reduced number of veterinary health care workers, and delays in laboratory or diagnostic results, alone or in combination. The low sample size and the inability to assess the clinical importance of respondents’ reported delay prevent us from concluding contraindications and adverse effects of telemedicine.

Although telemedicine has been proposed as a strategy to improve care in underserved communities, respondents who reported that their practices offered (vs did not offer) these services before the pandemic (before March 15, 2020, for the present study) were located in areas with lower PPL. Such disparity in PPL was not detected for areas served by practices for which respondents reported the use of telemedicine during the pandemic (between March 15 and June 15, 2020, for the present study). These findings provided some evidence that the adoption
client-facing telemedicine services was more robust in areas with higher PPL.

Because most respondents reported practicing in California, our results may differ from other areas with different levels of COVID-19 pandemic-related restrictions placed on veterinary practices, and this shortcoming must be considered when evaluating access to veterinary services before and after the onset of the COVID-19 pandemic. The evolution of adoption and use of client-facing telemedicine identified in our study also differ from those described in human medicine. For instance, a study on preventive care among insured human populations during the COVID-19 pandemic shows that patients living in zip code areas with lower income or with majority racial or ethnic minority populations experienced smaller reductions of in-person visits but lower rates of adoption of telemedicine, regardless of their urban or rural location. In a systematic review of the literature, barriers to adopting telemedicine worldwide were primarily related to technological immaturity among staff and patients, especially older adults. Our respondents experienced similar challenges when implementing client-facing telemedicine in their practices. The ability of telemedicine to reduce geographic and temporal obstacles to access veterinary care will therefore require strategies targeting staff and animal owners. The ubiquitous presence of high-speed bandwidth would help bridge a geographic gap of medical access in underserved communities. However, this expansion would likely benefit from adjunct local assistance or training of communities to reach full impact.

Most respondents reported an increase in feline or canine caseloads, which initially seemed counterintuitive considering social distancing measures and financial hardships created by the COVID-19 pandemic. Indeed, the AVMA reported a reduction in caseload for approximately 90% of respondents among 35,000 practice owners surveyed in April 2020, generating an average cash shortfall of $17,000/clinic during the month. The discrepancy with our findings was likely attributable to a difference in the timing of the surveys. Approximately half of the population surveyed by the AVMA in June 2020 reported 10% to 30% increases in client visits, which is consistent with our findings. Differences in demographic factors between surveys could also have influenced responses because the impact of the COVID-19 pandemic was initially more severe in small practices (≤ 6 full-time veterinarians), urban areas, and the northeastern states. However, the respondents in the present survey were not limited to practice owners and included veterinarians practicing mainly in larger practices in California. Around the same time as our study, the financial impact of COVID-19 on pet care was evaluated in a survey of 3 samples of 1,000 pet owners each, with 37% of pet owners reporting economic hardship. Although reduction in pet spending focused mainly on food (19% of respondents) and medications (12% of respondents), 23% of respondents reported spending more on their pets since the pandemic started.

Several factors could have explained the increased caseloads reported by our respondents. First, reduced activity or temporary closure of some practices may have prompted a redistribution of patients. Second, clients that spent more time at home could have been more likely to have notice changes in their pets, prompting them to seek medical attention. Finally, over 70% of our respondents indicated seeing newly adopted cats (66/91 [73%] respondents) or dogs (68/89 [76%] respondents) during the COVID-19 pandemic. Similarly, media reports indicate an increase in pet adoptions leading to shortages of animals available for adoption from shelters. Data available in a national database on animal shelters and rescues provide some evidence to support these claims, reporting about 2.4 million cats and dogs released live in 2020, with 11% (0.16 million/1.4 million) fewer cats and 25% (0.36 million/1.54 million) fewer dogs than in 2019, and 2.7 million intakes of strays, with 21% (0.37 million/1.75 million) fewer cats and 27% (0.47 million/1.745 million) fewer dogs than in 2019. However, business metrics remain equivocal as to whether the pet population has truly increased in the US during the COVID-19 pandemic.

Although we did not measure the magnitude of changes described in the present report as absolute counts, newly adopted patients and increased caseloads were reported by similar proportions of respondents, whether referring to cats or dogs. Similarly, about half of respondents handled owners’ concerns over COVID-19 transmission from their pets, whether cats or dogs. On the basis of respondents’ answers in the present survey, these concerns rarely led owners to discuss surrender or testing of the pet; however, because owners were not specifically surveyed, we cannot conclude whether owners considered surrendering their pets because of factors related to the COVID-19 pandemic or SARS-CoV-2 virus. Furthermore, only 4 and 2 respondents indicated that they had tested dogs or cats, respectively, and none tested positive for the SARS-CoV-2 virus. Overall, we found no evidence of differential care or owners’ attitudes toward dogs or cats because of the COVID-19 pandemic. This finding was surprising considering early reports of human-to-feline transmission of the SARS-CoV-2 virus, viral replication in cats, and airborne transmission between cats. The findings surrounding SARS-CoV-2 virus transmission between humans and other species have since been reviewed and provide no evidence of viral transmission from pets to humans. To the authors’ knowledge, the only evidence of animal-to-human transmission of the SARS-CoV-2 virus relates to the potential origin of the pandemic and, more recently, from farmed mink to which the virus was initially introduced by humans. In contrast, some suggest the possibility of a protective effect associated with pet ownership, in that exposure to less virulent respiratory coronaviruses commonly carried by pets might trigger an immune
response improving owners’ response against the SARS-CoV-2 virus. Until more evidence supports this possibility, the consensus from the scientific community is that precautionary measures should be taken toward pets, without discrimination between cats and dogs.

In conclusion, results of the survey described in the present report indicated the expansion of telemedicine in small animal practices during the COVID-19 pandemic. Adoption of telehealth in veterinary medicine was 1 way in which veterinarians were able to continue to provide care despite COVID-19 pandemic-related precautions. Anecdotal experiences combined with research findings for telehealth use, including those of the present study, can meaningfully assist our profession’s embrace of telehealth in the future. Our results also provided insight on potential applications (eg, telemedicine, teletriage, and teleadvice) and clinical indications for telehealth performed by veterinarians in their practices. The potential applications of telehealth in veterinary medicine are important, especially when considering ease to clients and patients, compared with stress and other factors with office visits, and the ability to reduce barriers to veterinary care. However, further work is needed to overcome legal, geographic, technological, and financial barriers that prevent the use of telehealth to provide increased access to veterinary care. Our study captured veterinarians’ perceptions of pet ownership characteristics during the COVID-19 pandemic. Further research might explore pet owners’ perspectives on similar questions. Despite initial decreases in caseloads, veterinarians experienced an increased demand for services including those associated with new pet adoptions. This finding could have reflected the importance of the human-animal bond as well as the efficacy of our profession in educating clients about the SARS-CoV-2 virus. Additionally, our results further supported the economic strength of the veterinary profession, even during a time of general economic downturn.

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The authors declare that there were no conflicts of interest.

References


Supplementary Material

Supplementary materials are posted online at the journal website: avmajournals.avma.org