

Assessing the Small Animal Veterinary Needs of Rural Maine and Implementing an Effective Management Plan

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Abstract

In Maine, the need for veterinarians is at an all-time high; the large animal (NIFA, 2022) and equine veterinary shortage (Parker, 2021) has been documented and there are mechanisms in place to help alleviate this shortage. In January 2022, LD 1885 (An Act To Increase Maine's Veterinary Workforce) was amended to propose the inclusion of critical and emergency veterinary service shortages (An Act To Increase Maine's Veterinary Workforce, 2022). Maine has methods to evaluate the shortage of large animal service, but the shortage of companion animal services is not fully described. In order to evaluate Maine's need for small animal services, a needs assessment will be conducted. With implementation of the Pets For Life Community Outreach Toolkit (Humane Society of the U.S., 2021), and by communicating with and surveying veterinary stakeholders in Maine, gaps in veterinary services will be identified. This information will help answer the question: How can the demand for companion animal veterinarians in underserved communities be meaningfully represented and how can those communities be managed appropriately? The long-term goal is to identify stakeholder priorities to address the veterinary shortage. With a better understanding and assessment of veterinary needs in the state, the issue can be organized in a way that is approachable for those outside of the veterinary community, like Maine policymakers, who, alongside the veterinary professionals, will serve a large role in solving the issue and improving veterinary services in rural communities.

Background & Methodology

In order to assess Maine's current veterinary situation, data was derived from various databases and used to better describe potential shortage areas and look further into the known locations of veterinary need.

Census (as of 2020):

Households per Maine county

AVMA (as of 2016):

- Average percentage of households with dogs (35.9%) or cats (43.6%)
- Average number of dogs (1.5) or cats (1.9) per owning household

Government of Maine (as of March 24, 2022):

Number of active veterinary licenses in each county

Data Represented:

- Average number of pets (dogs and cats) that a veterinarian sees in each county
- Ranked on a color scale to depict the most severe small animal veterinary shortages as calculated under all factors

A Look at the Numbers Vet Shortage Area? Pets 40452.04 2426.44 Franklin 2113.33 1792.83 1759.48 62748.91 Androscoggir 86214.48 Penobscot 18904.23 1575.35 Washington 1368.95 21903.21 Sagadahoc 1226.79 Piscataquis 1164.80 118809.58 71770.45 1139.21 Kennebed 23820.97 1134.33 919.87 23916.65 Knox 873.21 30562.52

21412.49

Calculations used to determine the number of pets per active practicing veterinarian:

Households per County \times Percent of Households with Dogs or Cats $^* \times$ Number of Dogs or Cats per Household *= Number of Dogs or Cats per County

 $Number\ of\ Dogs\ per\ County + Number\ of\ Cats\ per\ County = Number\ of\ Pets\ per\ County$ $Number\ of\ Pets\ per\ County\ \div\ Active\ Veterinary\ Licenses\ in\ County\ =\ Pets\ per\ Veterinarian$

*These calculations are estimations from the American Veterinary Medical Association (as of 2016)

Table 1: A breakdown of the numbers and factors used to calculate small animal shortage areas in Maine and the formula used. Designated shortage areas are published by the USDA.

Accepted Shortage Areas Nationally & in Maine

823.56

749.19

711.62

- USDA declared 221 areas across 48 states in the U.S.A. as shortage areas (2021)
- Often offers a debt-payback incentive to veterinarians through the Veterinary Medicine Loan Repayment Program
- Pets For Life Toolkit

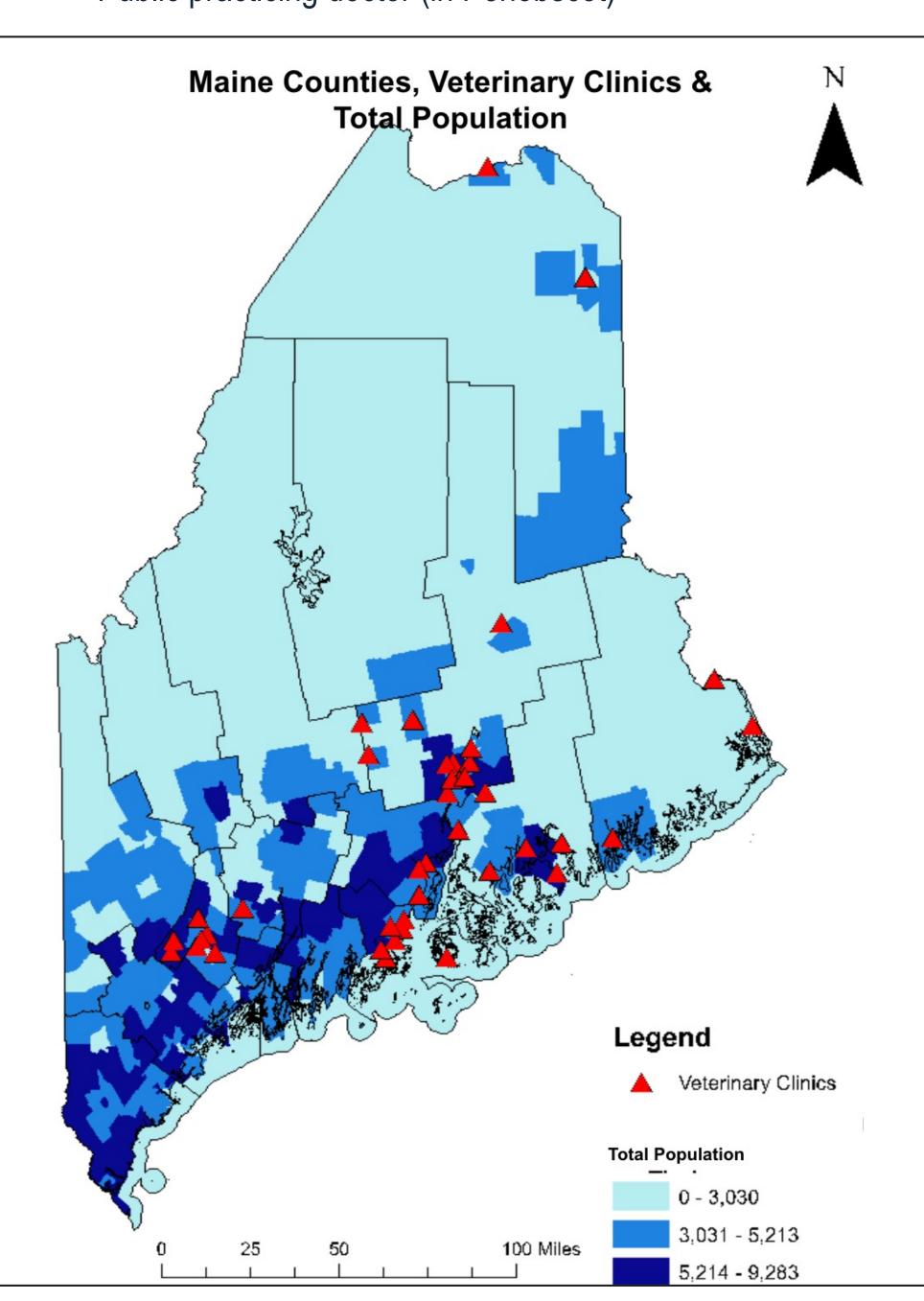
Hancock

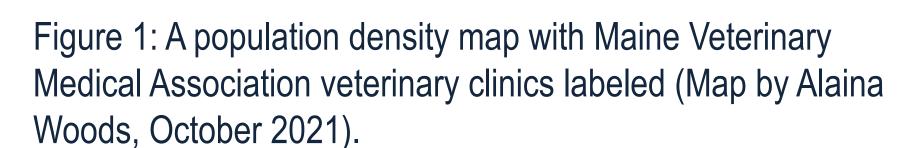
Cumberland

- Community outreach toolkit
- Assess veterinary needs in areas without shortage designations

Maine (NIFA, 2022):

- Two veterinary shortages in Maine; both are critical
 - Large animal veterinarians (in Hancock, Knox, Waldo, and Washington)
 - Public practicing doctor (in Penobscot)





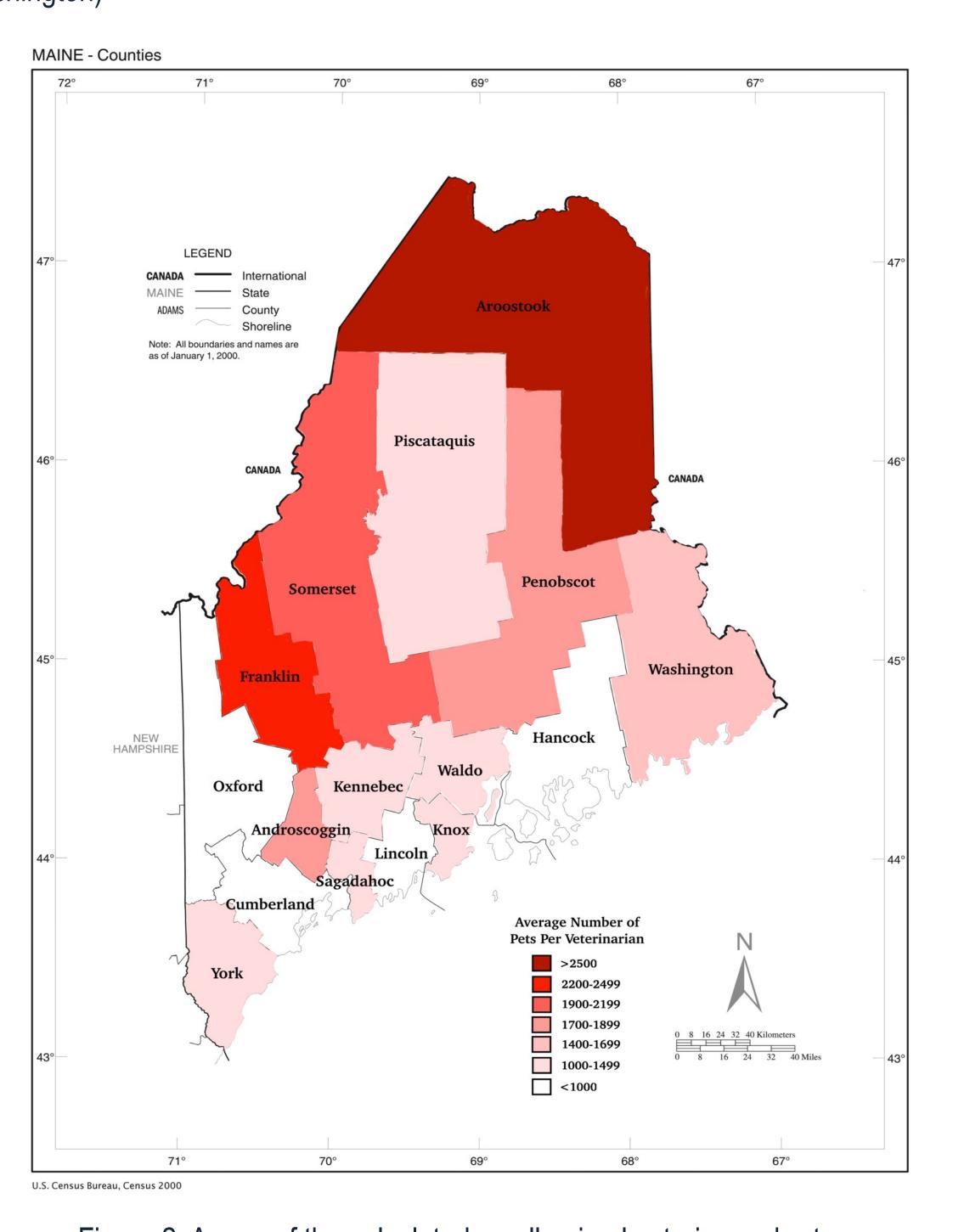


Figure 2: A map of the calculated small animal veterinary shortage areas in Maine using AVMA statistics and the Pets For Life Toolkit (Map outline from Census Bureau, 2000, altered to show shortage areas for companion animal medicine).

Conclusions

- Shortage areas as designated by NIFA's shortage map exclude the need for companion and small animal medicine
- Currently available resources do not adequately represent the needs of small animal medicine in the state
- Data depicts the critical need for small animal veterinary medicine in Aroostook and Franklin counties; no loan repayment is currently available in these counties
- There is no known set of requirements to designate an area as a companion animal veterinary shortage area; large animal designations require nomination through the Veterinary Medicine Loan Repayment Program (VMLRP)

Limitations

- Finding the actual number of veterinarians practicing small animal
 - Licensed doctors are not differentiated by specialty under the Maine Regulatory Licensing and Permitting
- Species practicing is not distinguished
- County registered is not necessarily county of practice
- Generalized data (animals/household) could be inaccurate
- Increases in pet ownership during pandemic

Future Steps

September – October: Develop survey questions to determine causes of shortages (retention issues, potential incentives to combat this, etc.)

October – January: Conduct survey with veterinarians

January – April: Connect quantitative data (as pictured in heat map) to survey findings; determine need/location of pop-up wellness clinics

April: Present data to veterinary stakeholders, students within major, and policymakers

April – May: Publish findings

The long-term goal is to connect veterinary stakeholders with Maine policymakers to increase accessibility for companion animal veterinary services.

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