

ACVPM – Epidemiology Specialty Exam

Major Knowledge Domains

1. Causality
2. Measuring Disease Frequency
3. Measures of Association
4. Data Acquisition, Organization, and Presentation
5. Epidemiologic Study Designs
6. Risk Analysis
7. Error and Confounding
8. Conceptual Understanding, Interpretation/Application of Diagnostic Tests
9. Epidemiologic Surveillance
10. Outbreak Investigation
11. Infectious Disease Epidemiology/Modeling
12. Biostatistics

Textbooks

Candidates are advised to consult as many reference materials as they feel necessary to prepare for the epidemiologic concepts on the examination. Below is a list of references that candidates may find useful. This list of references is not intended to be exhaustive or definitive. We suggest using the most current edition available for any of the references listed.

Epidemiology

1. Dohoo I, Martin W, Stryhn H (2014). *Veterinary Epidemiologic Research* 2nd ed. VER Inc. Prince Edward Island, Canada. Now available online https://files.upei.ca/avc/VER_all.zip
2. Thrusfield, M (2018). *Veterinary Epidemiology* 4th ed. John Wiley & Sons.
3. Szklo M and Nieto FJ (2018). *Epidemiology: Beyond the Basics*. 4th ed. Jones and Bartlett Publishers, Gaithersburg, MD.
4. Friis RH and Sellers TA (2020). *Epidemiology for Public Health Practice*, 6th ed. Jones and Bartlett Publishers, Sudbury, MA.
5. Lash TL, VanderWeele TJ, Haneuse S, Rothman KJ (2021). *Modern Epidemiology* 4th ed. Lippincott Williams & Wilkins. Philadelphia, PA.
6. Celentano DD and Szklo M. (2024). *Gordis Epidemiology*, 7th ed. WB Saunders Co. Philadelphia, PA
7. Sergeant, E, and Perkins N. (2015). *Epidemiology for Field Veterinarians: an Introduction*. CABI, Boston, US.

Statistics

8. Petrie A, Watson P (2013). *Statistics for Veterinary and Animal Science*, 3rd ed. John Wiley & Sons, West Sussex, UK.
9. Pagano M, Gauvreau K, Mattie H (2022). *Principles of Biostatistics*, 3rd ed. Chapman and Hall/CRC, Boca Raton, FL.

Relevant journals

We encourage candidates to practice reviewing recent peer-reviewed epidemiologic literature, with an eye toward critically appraising important major epidemiological knowledge domains 1-12, listed above. This list is not exhaustive.

1. Preventive Veterinary Medicine
2. National veterinary journals (such as JAVMA and AJVR)
3. Frontiers in veterinary science - relevant discipline - veterinary epidemiology and economics articles
4. American Journal of Epidemiology
5. International Journal of Epidemiology
6. Epidemiology
7. Emerging Infectious Diseases
8. Journal of Clinical Epidemiology
9. Zoonoses and Public Health

Other online resources

- Epidemiology resources and courses
https://www.cdc.gov/eis/php/request-services/#cdc_generic_section_2-epi-training-resources

<https://www.bmj.com/about-bmj/resources-readers/publications/epidemiology-uninitiated/1-what-epidemiology>

<https://www.karger.com/Article/PDF/334180> (Measures of association)
- Field Epidemiology
<https://bovine-ojs-tamu.tdl.org/bovine/index.php/AABP/article/view/5680>
- Surveillance
<https://rr-asia.oie.int/wp-content/uploads/2020/02/seacfmd-manual-5.pdf>
<https://epitools.ausvet.com.au/surveytoolbox>
- Questionnaires
<https://beva.onlinelibrary.wiley.com/doi/pdf/10.1111/evj.12429>
- Sampling
<https://epitools.ausvet.com.au/samplesize>
- Statistics
<https://avmajournals.avma.org/view/journals/javma/239/7/javma.239.7.948.xml>
- Herd immunity
<https://doi.org/10.1016/j.immuni.2020.04.012>
- Vaccine epidemiology
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4943153/?report=printable>
- Risk analysis

<https://doc.woah.org/dyn/portal/index.xhtml?page=alo&aloid=30209>