TARIQ ABBAS

DVM, MSc (Hons), PhD

Associate Professor & Chairman, Department of Epidemiology and Public Health

Cholistan University of Veterinary and Animal Sciences (CUVAS), Bahawalpur, Pakistan

Public Health Specialist | Epidemiologist | One Health & Infectious Disease Researcher

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PROFESSIONAL PROFILE

Veterinarian and epidemiologist with a doctoral degree in Preventive Medicine/Epidemiology from Freie Universität Berlin and more than 20 years of involvement in teaching, research, extension, and biomedical/veterinary public health work. Current academic leadership responsibilities include chairing the Department of Epidemiology and Public Health at CUVAS. Expertise spans One Health, zoonotic and emerging infectious diseases, surveillance, outbreak investigation, disease risk assessment, spatial and quantitative epidemiology, GIS, biostatistics, and evidence synthesis.

CORE EXPERTISE

- One Health, zoonoses and veterinary public health
- Risk assessment, disease-control programme design and population health
- Quantitative epidemiology, biostatistics and statistical modelling
- Epidemiological study design, systematic reviews and meta-analysis
- Scientific writing, publication, postgraduate research design and supervision
- Infectious disease epidemiology, surveillance and outbreak investigation
- Spatial epidemiology, GIS/geoinformatics and disease mapping
- Vector-borne and tick-borne diseases; emerging infectious diseases
- R and Python programming for epidemiological and geospatial data analysis

CURRENT APPOINTMENT

2018–Present — **Associate Professor & Chairman (Head of Department)**, Department of Epidemiology and Public Health, Cholistan University of Veterinary and Animal Sciences, Bahawalpur, Pakistan

- Leads departmental teaching, research, postgraduate supervision and academic development in epidemiology and public health.
- Conducts and supports research on infectious diseases, zoonotic pathogens, surveillance, risk assessment, GIS and quantitative epidemiology.
- Provides training in epidemiological methods, biostatistics, geospatial analysis and scientific communication.

ACADEMIC QUALIFICATIONS

2007–2011 — **PhD / Dr. med. vet. equivalent – Preventive Medicine & Epidemiology**, Freie Universität Berlin, Germany; doctoral research at the Institute of Epidemiology, Friedrich-Loeffler-Institut (FLI)

2002–2005 — **MSc (Hons) – Microbiology**, University of Veterinary and Animal Sciences, Lahore, Pakistan

1997–2001 — **Doctor of Veterinary Medicine (DVM) – Veterinary Medicine**, University of Agriculture Faisalabad, Pakistan; graduated with distinction / Silver Medal

ACADEMIC THESES

- PhD: Studies on potential risk factors for introduction and spread of avian influenza in domestic poultry of Pakistan. Supervisor: Prof. Franz J. Conraths. Completed 2011.
- MSc (Hons): Comparative efficacy of five different brands of commercial Newcastle disease LaSota virus vaccines in broilers. Supervisor: Prof. Muhammad Akram Muneer. Completed 2005.

PROFESSIONAL & RESEARCH EXPERIENCE

2018–Present — **Associate Professor / Chairman**, Cholistan University of Veterinary and Animal Sciences, Bahawalpur
- Epidemiology and Public Health; academic leadership, teaching, research and postgraduate supervision.

2014–2018 — **Assistant Professor**, The Islamia University of Bahawalpur / University College of Veterinary and Animal Sciences, Bahawalpur
- Teaching and research in veterinary epidemiology, public health, infectious diseases and disease prevention.

2013–2014 — **Assistant Professor**, Gomal University, Gomal College of Veterinary Sciences, Dera Ismail Khan
- Academic teaching and research in veterinary and population-health disciplines.

2011–2013 — **Assistant Professor**, University of Veterinary and Animal Sciences, Pakistan
- Teaching and research in epidemiology / clinical and population-health disciplines.

2007–2011 — **Researcher**, Friedrich-Loeffler-Institut, Institute of Epidemiology, Germany
- Doctoral research focused on avian influenza epidemiology, risk factors, surveillance and geospatial analysis.

2004–2011 — **Lecturer**, University of Veterinary and Animal Sciences, Department of Epidemiology and Public Health, Lahore, Pakistan
- Teaching, research and extension activities in veterinary epidemiology and public health.

2003–2004 — **Teaching Assistant**, University of Veterinary and Animal Sciences, Department of Clinical Medicine and Surgery, Lahore, Pakistan
- Teaching support and clinical experience in mixed-animal practice.

RESEARCH PROFILE & SCHOLARLY OUTPUT

- ResearchGate profile snapshot supplied for this CV: 53 research items, including 45 journal articles, 2 book chapters, 2 conference papers, 2 theses and 2 datasets.
- Research impact indicators on the supplied ResearchGate profile: h-index 16 and 1,259 citations.
- Research collaborations include national and international universities/institutes in Pakistan, Germany, Australia and other countries.
- Primary research domains: spatial and quantitative epidemiology, One Health, zoonotic and vector-borne diseases, livestock/poultry disease epidemiology, public-health surveillance and risk assessment.

COMPLETED RESEARCH PROJECTS & GRANTS

Completed — **Public Health / Food Safety Project – Co-Principal Investigator**, Qualitative and Quantitative Analyses of Antibiotics, Heavy Metals, Mycotoxins, and Pesticide Residues in Milk, Eggs and Meat Meant for Human Consumption
- Funding: IFPRI-USAID-PSSP; role: Co-PI. Focused on food-safety contaminants with direct public-health relevance.

Completed — **Veterinary Epidemiology Project / Grant**, Trichomoniasis in Naturally Infected Cholistani Bulls – An Approach towards Enhanced Livestock Productivity for Cholistani Nomads, Pakistan
- Grant recorded in December 2015; focused on an endemic reproductive disease and livestock productivity.

2007–2011 — **Veterinary Epidemiology / Doctoral Research Project**, Studies on Potential Risk Factors for Introduction and Spread of Avian Influenza in Domestic Poultry of Pakistan
- Freie Universität Berlin / Friedrich-Loeffler-Institut, Germany; completed as doctoral research in 2011.

AWARDS, DISTINCTIONS & SCHOLARSHIPS

- Young Scientist Award – Friedrich-Loeffler-Institut, Germany (June 2012).
- Silver Medal in DVM (December 2001); DVM completed with distinction at the University of Agriculture Faisalabad.
- PhD Fellowship – Higher Education Commission (HEC), Pakistan, in collaboration with the German Academic Exchange Service (DAAD) (awarded August 2006).

PROFESSIONAL CERTIFICATIONS & TRAINING – IN PERSON

- Use of GIS in Epidemiology – Friedrich-Loeffler-Institut, Germany (October–November 2007).
- Risk Analysis – Freie Universität Berlin, Germany (17 April 2008; 5 ECTS credits).
- Isolation and Quarantine Response Strategies in the Event of a Biological Disease Outbreak – University of Tennessee (28 contact hours; 1 June 2016).
- Short Training, Department of Clinical Medicine and Surgery – Konya, Turkey (23 January–5 February 2017).
- One Health Training Workshop – University of Tennessee (32 contact hours; 26 July 2018).

PROFESSIONAL CERTIFICATIONS & TRAINING – ONLINE / INTERNATIONAL

- Study Designs in Epidemiology – Imperial College London
- Global Health at the Human–Animal–Ecosystem Interface – University of Geneva.
- Introduction to Systematic Review & Meta-Analysis – Johns Hopkins University.
- Epidemics – The University of Hong Kong.
- Bayesian Statistics – Duke University.
- Remote sensing, GIS and spatial-analysis training through international university courses.

TECHNICAL SKILLS

- Advanced user of R and Python for epidemiological/statistical analysis
- Geospatial analysis, GIS and spatial epidemiology
- Epidemiological data management, visualization and modelling
- Biostatistics and quantitative study design
- Systematic review and meta-analysis
- Scientific writing, research communication and publication

PROFESSIONAL MEMBERSHIP & LANGUAGES

- Professional membership: Pakistan Veterinary Medical Council.
- Languages: English, German and Urdu.

SELECTED JOURNAL PUBLICATIONS

Selected publications are grouped by thematic relevance to demonstrate the breadth of the research profile. References are formatted in APA 7th style. The full research profile includes 45 journal articles on the supplied ResearchGate record.

A. PUBLIC HEALTH, ONE HEALTH & ZOONOTIC EPIDEMIOLOGY

Alfahad, M., Butt, F., Aslam, M. A., Abbas, T., Qazi, A. A., & Qudratullah. (2023). Incidence of dog bite injuries and its associated factors in Punjab province of Pakistan. *Science in One Health*, *1*, 100007. https://doi.org/10.1016/j.soh.2023.100007

Abbas, T., Xu, Z., Younus, M., Qayyum, A., & Riaz, M. T. (2017). Seasonality in hospital admissions of Crimean-Congo hemorrhagic fever and its dependence on ambient temperature—Empirical evidence from Pakistan. *International Journal of Biometeorology*, *61*(11), 1893–1897. https://doi.org/10.1007/s00484-017-1359-4

Abbas, T., & Riaz, M. T. (2017). Zero-inflated model to identify risk factors of human Crimean-Congo hemorrhagic fever in Pakistan. *Berliner und Münchener Tierärztliche Wochenschrift*, *130*, 165–169. https://doi.org/10.2376/0006-9366-15131

Yaqub, T., Shabbir, M. Z., Mukhtar, N., Tahir, Z., Abbas, T., Amir, E., & Defang, G. (2017). Detection of selected arboviral infections in patients with history of persistent fever in Pakistan. *Acta Tropica*, *176*, 34–38. https://doi.org/10.1016/j.actatropica.2017.07.019

Younus, M., Abbas, T., Zafar, M., Raza, S., Khan, A., Saleem, A. H., Idrees, M. A., Nisa, Q. U., Akhtar, R., & Saleem, G. (2016). Assessment of heavy metal contamination in raw milk for human consumption. *South African Journal of Animal Science*, *46*(2), 166–169. https://doi.org/10.4314/sajas.v46i2.7

Abbas, T., Younus, M., & Muhammad, S. A. (2015). Spatial cluster analysis of human cases of Crimean Congo hemorrhagic fever reported in Pakistan. *Infectious Diseases of Poverty*, *4*, 9. https://doi.org/10.1186/2049-9957-4-9

B. VETERINARY EPIDEMIOLOGY, VETERINARY PUBLIC HEALTH & VETERINARY MEDICINE

Rehman, S. U., Ashraf, W., Jalees, M. M., Abbas, T., Nazir, H., Jahanzaib, Akbar, M. A., Rauf, M., Ahmad, S., Qadir, L., Shan, M., & Ali, F. (2025). A meta-analysis of the preventive potential of mucosal vaccines for foot and mouth disease. *Journal of Microbiological Sciences*, *4*(2), 211–221. https://doi.org/10.38211/jms.2025.04.110

Ghafar, A., Gasser, R. B., Abbas, T., Rehman, A., Gauci, C. G., & Jabbar, A. (2021). Ticks and tick-borne diseases of bovines in a smallholder livestock context: The Pakistani example. *Advances in Parasitology*, *114*, 167–244. https://doi.org/10.1016/bs.apar.2021.08.009

Ghafar, A., Abbas, T., Rehman, A., Sandhu, Z.-U.-D., Cabezas-Cruz, A., & Jabbar, A. (2020). Systematic review of ticks and tick-borne pathogens of small ruminants in Pakistan. *Pathogens*, *9*(11), 937. https://doi.org/10.3390/pathogens9110937

Gebrekidan, H., Perera, P. K., Ghafar, A., Abbas, T., Gasser, R. B., & Jabbar, A. (2020). An appraisal of oriental theileriosis and the Theileria orientalis complex, with an emphasis on diagnosis and genetic characterisation. *Parasitology Research*, *119*(1), 11–22. https://doi.org/10.1007/s00436-019-06557-7

Abbas, T. (2018). Pilot study on the use of adaptive conjoint analysis to assess risk factors for highly pathogenic avian influenza outbreaks on commercial poultry holdings of Pakistan. *Approaches in Poultry, Dairy & Veterinary Sciences*, *4*(1). https://doi.org/10.31031/APDV.2018.04.000577

Jabbar, A., Abbas, T., Sandhu, Z.-U.-D., Saddiqi, H. A., Qamar, M. F., & Gasser, R. B. (2015). Tick-borne diseases of bovines in Pakistan: Major scope for future research and improved control. *Parasites & Vectors*, *8*, 283. https://doi.org/10.1186/s13071-015-0894-2

Farooq, U., Mahmood, S. A., Ahmad, I., Ahmad, N., Idris, M., & Abbas, M. T. (2015). Evaluation of postthaw sperm parameters and fertility of Cholistani service bulls. *Turkish Journal of Veterinary & Animal Sciences*, *39*(4), 472–479. https://doi.org/10.3906/vet-1502-27

Nasir, A., Ashraf, M., Shakoor, A., Adil, M., Abbas, T., Kashif, M., Rana, M. Y., & Reichel, M. P. (2014). Co-infection of water buffaloes in Punjab, Pakistan, with Neospora caninum and Brucella abortus. *Turkish Journal of Veterinary & Animal Sciences*, *38*(5), 572–576. https://doi.org/10.3906/vet-1310-36

Abbas, T., Younus, M., Muhmmad, S. A., Ijaz, M., & Shakoor, A. (2014). Some challenges to progressive control of foot and mouth disease in Pakistan—Findings of a pilot survey. *Transboundary and Emerging Diseases*, *61*(1), 81–85. https://doi.org/10.1111/tbed.12008

Khan, A., Khan, M. S., Avais, M., Ijaz, M., Ali, M. M., & Abbas, T. (2013). Prevalence, hematology, and treatment of balantidiasis among donkeys in and around Lahore, Pakistan. *Veterinary Parasitology*, *196*(1–2), 203–205. https://doi.org/10.1016/j.vetpar.2013.01.017

Abbas, T., Wilking, H., Höreth-Böntgen, D., & Conraths, F. J. (2012). Contact structure and potential risk factors for avian influenza transmission among open-sided chicken farms in Kamalia, an important poultry rearing area of Pakistan. *Berliner und Münchener Tierärztliche Wochenschrift*, *125*(3–4), 110–116. https://doi.org/10.2376/0005-9366-125-110

Abbas, T., Wilking, H., Staubach, C., Ziller, M., & Conraths, F. J. (2011). Priority areas for surveillance and prevention of avian influenza during the water-bird migration season in Pakistan. *Geospatial Health*, *6*(1), 107–116. https://doi.org/10.4081/gh.2011.162

Abbas, T., Muneer, M. A., Ahmed, M. D., Younus, M., & Khan, I. (2006). Comparative efficacy of five different brands of commercial Newcastle disease LaSota virus vaccines in broilers. *Pakistan Veterinary Journal*, *26*(2), 55–58. DOI: N/A

Khan, A. G., Khan, M. A., Younus, M., Khan, I., & Abbas, T. (2006). Some epidemiological aspects of foot and mouth disease outbreak in Lahore (Pakistan). *International Journal of Agriculture & Biology*, *8*(2), 300–301. DOI: N/A

C. SELECTED BOOK CHAPTER / SCHOLARLY CONTRIBUTION

Abbas, T., Hassan, F.-u., Riaz, M. T., & Ahmad, W. (2025). A methodological framework for geospatial analyses of livestock census data—A case study from Punjab, Pakistan. Book chapter. DOI: N/A

RESEARCH INTERESTS

Epidemiology • Geoinformatics / GIS • Biostatistics • Spatial and quantitative epidemiology • One Health • Zoonotic and emerging infectious diseases • Veterinary public health • Disease surveillance and risk assessment

ONLINE ACADEMIC IDENTIFIERS

- ORCID: 0009-0005-4773-6263
- ResearchGate: Tariq Abbas, Cholistan University of Veterinary & Animal Sciences (profile includes current research output and metrics).
- Institutional profile: Department of Epidemiology & Public Health, CUVAS.

— End of Curriculum Vitae —