STATEMENT

by Assoc. Prof. Natalya Usheva, MD, PhD

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For the doctoral thesis of
Dragomir Tsvetanov Ivanov

on

Infection prevention and control - public health challenges and priority solutions through the "One Health" approach

Scientific supervisors:
Prof. Desislava Vankova, MD, PhD, DSc
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Doctoral program in the area of higher education 7. Health and Sports, professional field 7.4. "Public Health" at the Department of Social medicine and Health care management at the Faculty of Public Health, Medical University "Prof. Dr. P. Stoyanov" - Varna.

According to Order No P- P-109-261/28.07.2026 of the Rector of the Medical University of Varna, I was appointed as an internal member of the Scientific Jury and with the decision of its first meeting (Protocol 1/10.08.26) I was designated to prepare a Statement.

Brief biographical data and career development of the PhD student

Dragomir Ivanov was born in 1979 in the city of Vidin. In 2003, he graduated with honors from the Faculty of Veterinary Medicine at the University of Forestry, in Sofia with a degree in "Veterinary Medicine," and in 2019, he earned a master's degree in "Public Health and Health Management" from the Medical University of Pleven. He completed a postgraduate specialization in veterinary epidemiology and infectious diseases from 2006 to 2007.

During his doctoral studies, Dragomir Ivanov served as an honorary assistant at the Department of Social Medicine and Health Care Organization, teaching students in the "Medicine" and "Dental Medicine" programs.

In 2021, Dragomir Ivanov was admitted to the full-time doctoral program at the Department of Social Medicine and Health Care Organization in the Faculty of Public Health at Medical University of Varna.

After graduating in 2003, Dragomir Ivanov began his professional career at the National Diagnostic and Research Veterinary Medical Institute in Sofia as a research associate. Since 2008, he has maintained a surgical practice in Belogradchik. Over the next nearly 20 years, Dr. Ivanov held leadership positions at institutions involved in infection prevention and control, disinfection, the implementation of infection safety measures, and veterinary public health.

He is fluent in English and has a good command of Russian and Serbian.

General characteristics of the thesis

The submitted by Dragomir Ivanov dissertation consists of 186 standard pages and is illustrated with 12 tables, 54 figures (including 2 models), and 2 survey forms in the appendix.

The bibliography includes 350 sources, of which 2 are in Cyrillic and 342 are in Latin script. The material is structured into the following well-balanced main sections: Introduction, I. Literature Review—46 pages; Chapter II. – Organization and Methodology of the Study – 16 pages; Chapter III. Results and Discussion of Original Research – 91 pages; Chapter IV. Conclusions, Scientific and Practical Contributions, Recommendations, and Conceptual Models – 7 pages; Publications Related to the thesis; Appendices; References.

Relevance of the dissertation

The "One Health" concept brings together the interrelationships between human health, veterinary medicine, and the environment, and emphasizes that most infectious diseases are the result of complex interactions between humans, animals, and ecosystems. An advantage of this approach is that it also serves as a practical strategy for managing infectious disease risks, adapting health systems, and building resilience to address future threats. This research topic is particularly relevant in the Bulgarian context, given that the concept of One Health is still not sufficiently understood or implemented, necessitating a comprehensive analysis of knowledge, attitudes, and preparedness among professional communities.

Dissertation evaluation

The "One Health" concept brings together the interrelationships between human health, veterinary medicine, and the environment, and emphasizes that most infectious diseases are the result of complex interactions between humans, animals, and ecosystems. An advantage of this approach is that it also serves as a practical strategy for managing infectious disease risks, adapting health systems, and building resilience to address future threats. This research topic is particularly relevant in the Bulgarian context, given that the concept of One Health is still not sufficiently understood or implemented, necessitating a comprehensive analysis of knowledge, attitudes, and preparedness among professional communities.

Material and methodology of the study

The applied methodology consists of a documentary and survey approach, employing original questionnaires tailored to the specific nature of human and veterinary practice. The questions are organized thematically, forming seven analytical modules that cover the two professional groups across general areas: training and knowledge of infection control, education, resource availability, personal protective equipment, practices, awareness of "One Health," and recommendations for improvement.

The study was conducted in three regions of Northern Bulgaria (Gabrovo, Pleven, and Silistra) between March 2023 and September 2024 among representatives of two main professional groups:

- human medicine (n=168) — specialists from four healthcare facilities directly involved in infection prevention and control;
- veterinary medicine (n=60) – professionals engaged in clinical practice, prevention, and control of zoonoses and antimicrobial resistance from all administrative regions of the country.

Descriptive statistics, the χ^2 test, and correlation analysis were applied, with a significance level of $p<0.05$.

The approval obtained from the Research Ethics Committee at Prof. Dr. Paraskev Stoyanov Medical University—Varna is also presented.

Characteristics and evaluation of the results and contributions of the thesis

The results from the large volume of collected data are presented in tabular and graphical form separately for veterinarians and human medical specialists, followed by a comparative analysis between the two groups. Knowledge of the "One Health"

concept is better among veterinary medical specialists than among human medical specialists: 80% of the former demonstrate an insufficient level of awareness compared to human medical specialists—nearly 100%.

With regard to training and self-assessment of the study participants' preparedness for infection prevention and control, differences were identified, with most indicating a higher level of self-assessment and a need for regular and additional training.

Veterinary practice also shows less favorable assessments regarding the availability of disinfectants and certain protective practices.

The availability of disinfectants and personal protective equipment is of utmost importance for ensuring good infection prevention practices. In this study, participants in the human medicine group reported higher levels of availability of personal protective equipment compared to those in the veterinary medicine group. Gaps were identified in the organization of infection prevention practices.

The graphical and tabular presentation of the data duplicates the information presented in many places. Some of the figures are not informative and could have been omitted from the main text of the dissertation.

Abstract and publications on the thesis

The abstract of the dissertation is 88 pages long, accurately reflects the structure of the work, and contains a detailed description of the methodology and the most important results, conclusions, and contributions of the study, as well as recommendations for practice. In connection with the dissertation, the doctoral candidate has submitted four full-text publications, two of which list him as the lead author. One of the articles was published in English, and the others in Bulgarian.

Conclusion

The dissertation titled *"Infection Prevention and Control: Public Health Challenges and Priority Solutions Through the 'One Health' Approach"* is a comprehensive scientific study dedicated to a highly important and timely topic, conducted using targeted samples, with significant contributions, providing a rationale for subsequent health policy and organizational actions to implement infection prevention and control measures through the proposed models based on the "One Health" approach .

The doctoral candidate demonstrates proficiency in working with scientific publications and documents, analyzing and synthesizing information, as well as presenting the results of scientific research.

The dissertation fully complies with the requirements of the Act for the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation and the Rules for the Development of the Academic Staff of the Medical University – Varna.

In light of the foregoing, I offer my positive evaluation and recommend that the members of the esteemed Scientific Jury support the conferral of the educational and scientific degree of "Doctor" in the scientific specialty "Public Health Management," professional field 7.4. Public Health, in the field of higher education 7. Health Care and Sports, to *Dr. Dragomir Tsvetanov Ivanov.*

12.09.2026 г. Chairman of the Scientific Jury by: .....

Varna Assoc. Prof. Natalya Usheva, MD, PhD