NIVEDI PULSE

ICAR Director General Envisions National Livestock Disease Intelligence Hub at ICAR-NIVEDI

Hon'ble Dr Mangi Lal Jat, Secretary, Department of Agricultural Research and Education (DARE) and Director General, Indian Council of Agricultural Research (ICAR), envisioned the establishment of a National Livestock Disease Intelligence Hub at ICAR-NIVEDI to strengthen livestock disease surveillance, early warning systems and preparedness in India. During his maiden visit to the ICAR–NIVEDI, on 31 October 2026, Dr M. L. Jat laid the foundation stone for the Livestock Disease Training Laboratory, being established under the INLEAD programme, in the presence of Dr Raghavendra Bhatta, Deputy Director General (Animal Science), ICAR, and Dr Baldev R. Gulati, Director, ICAR-NIVEDI. The proposed facility will enhance capacity building in veterinary epidemiology, disease informatics, disease modelling, and the application of artificial intelligence (AI) and machine learning (ML) for generating actionable livestock disease intelligence. He appreciated the Institute's significant contributions to national livestock disease control programmes and assured ICAR's support for strengthening its infrastructure and scientific capabilities.

During the institutional review, Dr Gulati highlighted institute's contributions to the eradication of rinderpest from India and its continuing scientific support to national control programmes for FMD, PPR, CSF and brucellosis. The Institute's contributions through disease surveillance, sampling strategies, seromonitoring and epidemiological analysis were presented. He also showcased the National Animal Disease Referral Expert System (NADRES), which forecasts district-level risks for 15 livestock diseases up to two months in advance, along with emerging approaches for predicting transboundary and emerging disease threats.

Emphasizing the importance of translating scientific outputs into effective disease control measures, Dr Jat called for rigorous validation of disease forecasts and the establishment of sentinel surveillance sites in every State for the early detection of priority livestock diseases. He also highlighted the need to integrate animal production and nutritional parameters with disease surveillance through collaboration with ICAR institutes, particularly the National Institute of





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Animal Nutrition and Physiology (NIANP) and the National Dairy Research Institute (NDRI). Such an integrated approach would help elucidate the interrelationships between animal health, productivity, nutrition and disease risks.

Commending ICAR-NIVEDI's scientific achievements and institutional contributions, Dr Jat encouraged stronger inter-institutional collaboration and urged scientists and staff to uphold the principles of **"Responsibility, Accountability and Transparency."** Describing ICAR-NIVEDI as one of the "star institutes" of the ICAR family, he expressed confidence in its potential to emerge as a **Global Centre of Excellence in Animal Health**.





During the visit, Dr Jat toured the Institute's WOAH Reference Laboratory for PPR, Disease Informatics Unit and NaaViC agribusiness incubation centre, gaining insights into their scientific activities and institutional initiatives. He also interacted with scientists and staff and planted saplings on the campus, reaffirming the importance of environmental sustainability. The visit was attended by Dr Raghavendra Bhatta, Dr Tusar Kanti Behera, Director, ICAR–Indian Institute of Horticultural Research (IIHR), Dr Pallab Chaudhury, Joint Director, ICAR–Indian Veterinary Research Institute (IVRI), Regional Campus, and scientists and staff of ICAR-NIVEDI.

The visit reaffirmed ICAR-NIVEDI's strategic role in advancing livestock disease intelligence, strengthening evidence-based disease control and contributing to the protection of animal health and livestock productivity in India.





Excellence in Field Epidemiology: NIVEDI Secures National First Rank for Second Consecutive Time

ICAR-NIVEDI secured first rank among 14 participating institutions in the September 2026 national Intermediate Field Epidemiology Training Programme (I-FETP) scorecard, achieving an impressive overall score of 84.4 out of 100, well above the national average of 69.0. The Institute also received the highest rating for institutional support.

The I-FETP is a one-year national training programme conducted by the National Centre for Disease Control (NCDC) to strengthen field

epidemiology competencies in disease surveillance, outbreak investigation, epidemiological analysis and public health response. ICAR-NIVEDI is the only veterinary research institute among the 14 participating institutions, with the remaining institutions representing the medical and public health sectors. Once again, a proud moment for ICAR-NIVEDI! The Institute secured Rank 1 nationally for the second consecutive time in the I-FETP Institute Scorecard, October 2026, with an overall score of 90.2/100, well above the national average of 81.6—a testament to its continued commitment to excellence in field epidemiology training. This achievement reflects ICAR-NIVEDI's institutional commitment to strengthening field epidemiology and disease preparedness through veterinary expertise, interdisciplinary collaboration and the One Health approach. It also highlights the Institute's important role in bridging animal and human health sectors to enhance surveillance and response to emerging public health threats.

Strengthening Disease Outbreak Investigation Skills Through Field Epidemiology Training

The second contact session of the Intermediate Field Epidemiology Training Programme (I-FETP) was conducted at ICAR-NIVEDI, from 5 to 9 October 2026, in collaboration with the National Centre for Disease Control (NCDC). The five-day training programme brought together 14 public health professionals from Karnataka, Odisha and Puducherry. The programme focused on strengthening participants' practical competencies in disease surveillance, outbreak investigation, epidemiological data analysis using Jamovi, GIS-based analysis, scientific presentations and group epidemiology planning. The sessions were supported by mentors from the World Health Organization (WHO), facilitating interactive learning and practical application of epidemiological principles.

The training aimed to enhance the capacity of field epidemiologists to detect, investigate and respond effectively to public health threats. The programme also reinforced the importance of interdisciplinary collaboration and the One Health approach in addressing complex health challenges at the human–animal–environment interface.



The successful conduct of the contact session, together with ICAR-NIVEDI's top ranking in the national I-FETP scorecard, underscores the Institute's growing contribution to strengthening field epidemiology training, institutional capacity and integrated disease preparedness in India.

ICAR-NIVEDI Participates in PreCID 2026 as Knowledge Partner

ICAR-NIVEDI, Bengaluru, partnered with the Tata Institute for Genetics and Society (TIGS) as Knowledge Partner for PreCID 2026: Prevention and Control of Infectious Diseases – Insect Vectors in Plant, Veterinary & Human Health, held on 6–7 October 2026 at the National Centre for Biological Sciences (NCBS), Bengaluru, and organised by TIGS and NCBS. The conference promoted a One Health approach to vector-borne disease surveillance, prevention and control across plant, animal and human health.



Dr. Baldev Raj Gulati, Director, ICAR-NIVEDI, participated in the inaugural session, and delivered an invited talk on vector-borne diseases in animals. Dr. V. Balamurugan, Principal Scientist and Head of the WOAH Reference Laboratory for Peste des Petits Ruminants (PPR), presented NIVEDI's risk-based surveillance strategies for PPR and its elimination in India towards global eradication and contributed to panel discussions on vector control and the development of a national roadmap for vector surveillance and management. ICAR-NIVEDI's participation highlighted its contributions to evidence-based animal disease surveillance, disease prediction and prevention, and cross-sectoral One Health collaboration.



ICAR-NIVEDI Organise Workshop on Molecular Techniques for Environmental Surveillance of Viral Pathogens

ICAR-NIVEDI, in collaboration with the National Centre for Biological Sciences (NCBS), Bengaluru, organised a three-day workshop on *"Molecular Techniques Developed to Detect Viral Pathogens from Environmental Samples"* from 7–9 October 2026 at ICAR-NIVEDI and NCBS, Bengaluru.

The first day of the workshop, held at ICAR-NIVEDI, focused on lumpy skin disease (LSD), sample collection and sampling strategies LSD virus (LSDV), and environmental surveillance as a tool for monitoring animal diseases.



The programme also included sessions on laboratory biosafety practices and a hands-on demonstration of nucleic acid isolation and molecular detection from environmental samples. The subsequent two days at NCBS provided participants with practical exposure to molecular detection of One Health pathogens and next-generation sequencing technologies, enhancing their understanding of advanced diagnostic and genomic surveillance approaches. A total of 17 participants, comprising 11 field veterinarians and six laboratory personnel, attended the workshop. The training strengthened participants' knowledge and practical skills in environmental sampling, molecular diagnostics and genomic surveillance, contributing to enhanced disease monitoring and early detection of emerging and re-emerging animal and zoonotic pathogens. The workshop highlighted the importance of collaborative capacity building and the integration of environmental surveillance with molecular diagnostic approaches for strengthening animal health and One Health preparedness.

Review of Research Projects to Strengthen Livestock Disease Surveillance, Diagnostics and Prediction

The Mid-Term Institute Research Committee (IRC) meeting of ICAR-NIVEDI for 2026–27 was held on 13 October 2026 under the chairmanship of Dr. Baldev R. Gulati, Director, ICAR-NIVEDI. The meeting commenced with a welcome address by Dr. G. Govindaraj, Nodal Officer, PME Cell and Member Secretary of the IRC. Principal Investigators presented the progress of 54 ongoing and completed institute-funded and externally funded research projects, covering the period from April to September 2026. The projects addressed a wide range of areas, including livestock disease surveillance, zoonoses, diagnostic development, vaccine research, epidemiology, antimicrobial resistance, disease modelling and predictive analytics. The committee provided project-specific

recommendations to strengthen sampling strategies, improve experimental design and statistical analysis, validate research data, enhance diagnostic approaches, and ensure the timely achievement of project milestones. Particular emphasis was placed on integrated surveillance at the human–animal interface, refinement of sentinel surveillance sampling plans, incorporation of vaccination and active surveillance data into disease prediction models, and systematic validation and management of research data in accordance with ICAR data policy. The general recommendations included the submission of revised and new project proposals at a special IRC meeting, preparation of RPP-III



reports for completed projects, and furtherdeliberations on sampling plans for sentinel surveillance of targeted diseases. The meeting concluded with a vote of thanks proposed by Dr. Z. B. Dubal, Co-Nodal Officer, PME Cell.

ICAR-NIVEDI Holds Pre-QRT Meeting Ahead of Quinquennial Review

ICAR-NIVEDI conducted online Pre-Quinquennial Review Team (QRT) meeting on 15 October 2026 to review the Institute's performance during April 2021–March 2026. The meeting was chaired by Dr. Inderjeet Singh, Vice Chancellor, Bihar Animal Sciences University, Patna, and Chairman of the QRT. The other members included Dr. Naresh Jindal, Former Director of Research, LUVAS, Hisar; Prof. Utpal S. Tatu, Professor, Indian Institute of Science, Bengaluru; Dr. Rakesh Mishra, Director, Tata Institute for Genetics and Society, Bengaluru; and Dr. Pratap Singh Birthal, Former Director, ICAR-National Institute of Agricultural Economics and Policy Research, New Delhi. The QRT members joined virtually, while Dr. B. R. Gulati, Director, ICAR-NIVEDI; Dr. Jagadish Hiremath, Principal Scientist and Member Secretary, QRT; Group Heads; and the Nodal Officer, PME, participated from the Institute's committee hall.



Dr. B. R. Gulati welcomed the Chairman and members of the QRT. Dr. Jagadish Hiremath presented "ICAR-NIVEDI 2021–2026: Performance Review and Action Taken on the 5th QRT Recommendations", highlighting the Institute's achievements during the review period and action taken on the previous QRT recommendations.

The Director subsequently presented *"India's Livestock Health Challenges and ICAR-NIVEDI's Proposed Roadmap 2026–2031"*, outlining emerging animal health priorities and the Institute's strategic directions for the next five years. Dr. Inderjeet Singh elaborated on the QRT's terms of reference and the approach for evaluating the Institute's research output, infrastructure, human resources, institutional linkages and future priorities. The meeting also deliberated on the preparation of the QRT report in the ICAR-prescribed format, information requirements from different research groups and the schedule for the forthcoming review visit. The QRT is scheduled to visit ICAR-NIVEDI, Bengaluru, from 8 to 10 January 2027 for the in-person review. The meeting concluded with a vote of thanks by Dr. Jagadish Hiremath, Member Secretary, QRT.

CEE Lecture: Bird Flu and Human Health: Understanding Disease Risks and Prevention Through One Health

The ICAR–NIVEDI Seminar Club organized a special lecture under the Continuing Epidemiology Education (CEE) Lecture Series on 15 October 2026. Dr. Suresh K. Mittal, Distinguished Professor of Virology and University Faculty Scholar, Department of Comparative Pathobiology, College of Veterinary Medicine, Purdue University, USA, delivered the lecture on "Avian Influenza at the Human–Animal Interface: Significance and Strategic Mitigation Measures." The programme was chaired by Dr. B. R. Gulati and coordinated by Dr. Shivasharanappa N. The lecture highlighted the significance of avian influenza at the human–animal interface and emphasized the importance of the One Health approach, integrating human, animal and environmental health, for effective disease prevention, preparedness and mitigation. The interactive discussion provided valuable insights into emerging challenges and strategies for strengthening zoonotic disease surveillance and response. The programme reinforced ICAR–NIVEDI's commitment to advancing epidemiology education, fostering scientific collaboration and promoting One Health initiatives.



ICAR-NIVEDI Expands NABL Accreditation to 28 Veterinary Diagnostic Tests

ICAR-NIVEDI has achieved a significant milestone by expanding its accreditation scope under ISO/IEC 17025:2017 to "28 veterinary diagnostic tests", accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) from 7th October 2026. The expanded scope encompasses major livestock diseases, zoonotic infections and antimicrobial resistance (AMR), reinforcing the Institute's commitment to quality-assured veterinary diagnostic services.

The accredited tests cover several important livestock diseases, including brucellosis, leptospirosis, capripoxvirus infections, including lumpy skin disease, trypanosomosis and bovine tuberculosis in cattle and buffaloes. In sheep and goats, the scope includes Peste des Petits Ruminants, sheep pox, goat pox, brucellosis and leptospirosis. Diagnostic tests for African swine fever, classical swine fever, brucellosis and leptospirosis in pigs, as well as leptospirosis in dogs, are also included.

The accreditation further covers bacterial identification and antimicrobial susceptibility testing of Escherichia coli and Staphylococcus species in specified livestock and poultry samples. ICAR-NIVEDI employs advanced molecular, serological and microbiological techniques, including PCR, real-time PCR, ELISA, virus neutralisation and antimicrobial susceptibility testing, to deliver reliable and quality-assured diagnostic results.

This achievement strengthens the Institute's role in supporting veterinary disease diagnosis, early detection of disease outbreaks, effective surveillance and national preparedness for emerging and re-emerging animal diseases. It also contributes to strengthening India's veterinary diagnostic capacity and advancing the One Health approach to addressing diseases at the animal–human–environment interface. The revised approved accreditation scope is valid until 4 December 2029, subject to continued compliance with NABL requirements.

Can Oral Rabies Vaccines Help Protect Free-Roaming Dogs? Experts Examine Scientific and Safety Challenges

ICAR-NIVEDI, hosted a Brainstorming Workshop on Oral Rabies Vaccine (ORV) for Veterinary Use in India on 28 October 2026. Dr Naveena B. Maheswarappa, Animal Husbandry Commissioner, DAHD, Government of India, chaired the workshop, and Dr Baldev R. Gulati, Director, ICAR-NIVEDI, coordinated it. Participants included experts from DAHD, NCDC, MoEFCC, the WOAH Reference Laboratory for Rabies at KVAFSU, and ICAR; Dr Divakar Hemadri, ADG (Animal Health), joined online. The workshop looked at whether ORV could help vaccinate free-roaming dogs that are hard to catch, and so support India's goal of eliminating dog-mediated human rabies by 2030.

Dr Debalina Mitra (DAHD) presented the rabies situation in India and the National Action Plan for Dog-Mediated Rabies Elimination (NAPRE). Dr Simmi Tiwari (NCDC) spoke on the biosafety and environmental concerns of live oral vaccines. Dr Krithiga N (KVAFSU) reviewed the science of ORV and global field experience. Dr Gulati presented an evidence-to-decision framework for ORV in India. The workshop recommended a step-by-step approach in which pilot studies come before any wider use: scaling up injectable dog vaccination remains the first priority, only third-generation oral vaccines, preferably from Indian manufacturers, should be considered, regulatory and biosafety clearances must be in place first, independently evaluated pilots should be run at selected high-risk sites and DAHD, NCDC, MoEFCC, ICAR and veterinary universities should work more closely together.



ICAR-NIVEDI at WOAH Regional Seminar on Wildlife Health, Bengaluru

The World Organisation for Animal Health (WOAH) Regional Representation for Asia and the Pacific organised a Regional Training Seminar for National Focal Points for Wildlife from 27 to 29 October 2026 at Vivanta, Residency Road, Bengaluru with the local host the Department of Animal Husbandry and Dairying (DAHD), Government of India, with the support from Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU). Dr Tomoko Ishibashi, WOAH Regional Representative for Asia and the Pacific, and Dr Naveena B. Maheswarappa, Animal Husbandry Commissioner, DAHD, gave the inaugural address to the participants of the seminar. About 45 participants from the region attended. Over three days, experts from WOAH, Mahidol University and NParks, Singapore, led sessions on: the fundamentals and operational aspects of wildlife disease surveillance, mapping stakeholders and building networks and the ecological, ethical, welfare, legal and safety aspects of wildlife health work.





Dr V. Balamurugan, Principal Scientist and Head of the WOAH Reference Laboratory for Leptospirosis, ICAR-NIVEDI, took part in the WOAH Regional Training Seminar for National Focal Points for Wildlife (Asia and the Pacific). The seminar was held at Vivanta, Bengaluru, from 27 to 29 October 2026. On 29 October, he presented "Regional Perspectives on Wildlife Health: Leptospirosis on wildlife interface" in the One Health hybrid session. He spoke about ICAR-NIVEDI's surveillance and diagnostic work at the wildlife–livestock–human interface. He also joined the panel discussion led by WOAH RRAP, on regional priorities for wildlife disease surveillance, laboratory networking and One Health collaboration. The seminar helped strengthen ICAR-NIVEDI's links with WOAH and regional partners on wildlife health and One Health.

WOAH RRAP Team Visits ICAR-NIVEDI

A four-member delegation from the WOAH Regional and Sub-Regional Representation for Asia and the Pacific (RRAP) visited the ICAR-NIVEDI during the regional seminar.

The delegation was led by Dr. Tomoko Ishibashi, Regional Representative, WOAH RRAP, and



included Dr. Lesa Thompson, Dr. Claire Cayol and Dr. Kinley. During the visit, Dr. B. R. Gulati briefed the delegation on the mandate and activities of ICAR-NIVEDI, highlighting its contributions to livestock disease forecasting, modelling, disease intelligence, surveillance, epidemiology, diagnostics and One Health approaches.

Dr. V. Balamurugan subsequently introduced the delegation to the activities of the WOAH Reference Laboratories for Peste des Petits Ruminants (PPR) and Leptospirosis, including reference diagnostic services, disease surveillance, reference and proficiency testing, and regional capacity-building and training programmes.

The delegation also toured the Institute's laboratory and research facilities and appreciated the advanced infrastructure, biosafety standards and significant contributions of ICAR-NIVEDI towards PPR eradication and leptospirosis control. Discussions were held on strengthening future collaboration in One Health approaches and the feasibility of conducting specialized training programmes for WOAH Member Countries in the Asia and Pacific Region. The visit provided an important opportunity to strengthen institutional collaboration and explore new avenues for regional cooperation in animal health, zoonotic disease surveillance and capacity building. ICAR-NIVEDI remains committed to advancing regional and global animal health through scientific excellence, disease intelligence and collaborative One Health initiatives.

ICAR-NIVEDI Observes Vigilance Awareness Week 2026, Promotes Probity and Integrity

ICAR-NIVEDI observed Vigilance Awareness Week 2026 from 26 October to 2 November under the theme *"Probity for Prosperity"*, promoting integrity, transparency, accountability and ethical conduct in scientific research and public service. The observance commenced with an institutional gathering and administration of the Integrity Pledge by Dr. B. R. Gulati, Director, ICAR-NIVEDI. A series of competitions, including elocution on ethical practices in scientific research and



public institutions, an awareness quiz, a drawing competition and a Pick and Speech event, engaged staff in promoting vigilance and ethical values.

The valedictory function was held on 2 November at the Institute's Training Hall. Dr. Sanganagouda Hosalli, Deputy Commissioner of Excise, Government of Karnataka, Kalaburagi, attended as Guest of Honour and emphasised the importance of ethical practices in research and administration. He distributed prizes to the winners of various competitions. Dr. B. R. Gulati highlighted the importance of accountability, responsibility and commitment in discharging official duties. Dr. S. S. Patil, Vigilance Officer, presented a report of the activities conducted week long.



NaaViC Strengthens Startup Incubation, Innovation Outreach and Farmer-Centric Entrepreneurship

NIVEDI's Agri-Business Incubation Centre (NaaViC) undertook a series of activities during October 2026 to promote agribusiness entrepreneurship, support startup incubation and facilitate the commercialization of innovations in animal husbandry and veterinary services.

Virtual Training and Mentoring under SHITIJ 2.0: Team NaaViC, in collaboration with Spoke Institutes, conducted virtual training and mentoring sessions for shortlisted incubatees under the SHITIJ 2.0 Agri-Business Incubation Programme. The sessions covered design thinking, prototype development, intellectual property rights, company formation, GST compliance and funding opportunities under Government of India schemes. Individual mentoring was also provided to incubatees allocated to ICAR-NIVEDI to support the development of viable, market-ready ventures.

RKVY-RAFTAAR Programme Review: Team NaaViC participated in the virtual review meeting held on 9 October 2026 with Shri Dharminder Singh, Deputy Secretary, RKVY, and Shri Ashok Kumar, Under Secretary, RKVY. The meeting reviewed the progress and achievements of NaaViC under the Agri-Business Incubation programme and discussed implementation status, challenges and measures to strengthen programme delivery.

Innovation Outreach at Krishi-Thotagarike Mela: NaaViC participated in the Krishi-Thotagarike Mela held at the College of Agriculture, Navile, Shivamogga, on 30–31 October 2026. A dedicated stall showcased diagnostic kits and technologies developed by ICAR-NIVEDI, along with innovations from NaaViC-incubated startups—Dhenukriya Ayurvet Pvt. Ltd., Green Square Technologies Pvt. Ltd. and Weathercast Solutions Pvt. Ltd. The event provided opportunities for startups to interact with farmers, prospective customers and industry representatives. Visitors were also sensitized to the RKVY-RAFTAAR scheme and its incubation and funding opportunities.

Visit of Secretary, DARE and Director General, ICAR: Dr. M. L. Jat, during his ICAR-NIVEDI, visited NaaViC at ICAR-NIVEDI on 31 October 2026 during his maiden visit to the Institute. Dr. Satish B. Shivachandra, and Mr. Harshendra S. M., Business Manager, briefed him on incubation activities, progress and achievements under the RKVY-RAFTAAR scheme. Dr. Jat interacted with the team NaaViC, and emphasized prioritizing farmer-centric innovations and problem-oriented solutions that address real-world agricultural challenges and deliver practical benefits to farmers.



Through these initiatives, NaaViC continued to strengthen its role in nurturing agripreneurs, supporting technology commercialization and fostering innovation-led development in animal husbandry and veterinary services.

ICAR-NIVEDI Wins Best Athlete Award at ICAR Inter-Zonal Sports Tournament

Mrs. Aachal Palewar, AAO, brought laurels to the Institute by securing Gold Medals in both the 100-metre and 200-metre sprint events and winning the prestigious Best Athlete (Women) Award at the ICAR Inter-Zonal Sports Tournament held at ICAR-CAZRI, Jodhpur, from 23 to 26 October 2026. This highlights her outstanding performance and competitive spirit at the inter-zonal level. Her remarkable achievement reflects her exceptional athletic ability, dedication, determination and commitment to sporting excellence. This achievement has brought immense pride and recognition to ICAR-NIVEDI, and serves as an inspiration to colleagues and fellow researchers to pursue excellence in sports alongside their professional commitments.



Disease Radar

Major One Health Events – October 2026

October 2026 witnessed important animal health and zoonotic disease events in India and internationally. Key events included H5N1 avian influenza in captive waterbirds in Tamil Nadu, continued transmission of African swine fever in Asia, the spread of Bundibugyo virus disease to additional countries, and widespread West Nile virus infection in Europe. These events reinforce the importance of integrated disease surveillance, early detection, laboratory confirmation, effective biosecurity and coordinated multisectoral responses under the One Health approach.

1. H5N1 avian influenza in waterbirds at Vandalur Zoo, Tamil Nadu, India

Seven waterbirds, including painted storks, a pelican, a grey heron and an oriental darter, died at Arignar Anna Zoological Park, Vandalur, between 3 and 7 October. The National Institute of High Security Animal Diseases (NIHSAD), Bhopal, confirmed H5N1 avian influenza on 21 October. The zoo was temporarily closed for disinfection and reopened on 25 October, with affected bird enclosures cordoned off. RT-PCR tests of 26 animal keepers were reported negative. India and South Asia Microbiology and Infectious Disease Report – 25 October 2026

2. Foot-and-mouth disease in Namibia – SAT1 serotype confirmed

Namibia reported an FMD outbreak on a commercial farm in the Karasburg State Veterinary District, Kharas Region, on 23 September 2026. Although the outbreak began in September, its implications continued into October, including suspension of Namibia's FMD-free zone status and trade restrictions. The outbreak was confirmed to be caused by SAT1 serotype. By 14 October, 131 animals had tested positive across 18 infected farms. WOAH's notification listing dated 13 October continued to show the serotype as pending, while the Namibian outbreak update reported SAT1 confirmation. EU statement on the FMD outbreak in Namibia – 5 October 2026; Namibia FMD situation update – 17 October 2026; WOAH – Foot-and-mouth disease.

3. African swine fever continues to affect Asian pig populations

The FAO situation update of 15 October reported continued ASF transmission across Asia and the

Pacific. Viet Nam recorded 1,137 outbreaks in 31 provinces and municipalities by 5 October 2026, resulting in the destruction of more than 154,340 pigs. Additional outbreaks were reported in several localities during early October. ASF also continued to be reported in other countries in the region, including India, Nepal and the Philippines. These events highlight the continuing threat to pig production and the importance of farm-level biosecurity and movement controls. FAO – African swine fever situation update in Asia and the Pacific, 15 October 2026.

4. Bundibugyo virus disease spreads to Kenya and Nigeria

The outbreak of Bundibugyo virus disease, a rare form of Ebola disease, in the Democratic Republic of the Congo (DRC) continued to expand during October. Kenya reported its first imported laboratory-confirmed case on 6 October in a person with a travel history from the DRC; the patient subsequently died. By 25 October, Kenya had reported nine confirmed cases, including two deaths. Nigeria reported a case on 20 October in an individual with a travel history to Uganda. In the DRC, 9,964 confirmed cases and 4,851 deaths had been reported by 25 October. Contact tracing and public health response measures were initiated in the affected countries. WHO – Bundibugyo virus disease in the Democratic Republic of the Congo, 8 October 2026; ECDC – Multi-country Bundibugyo virus disease outbreak, 26 October 2026.

5. West Nile virus activity remains widespread in Europe

The 2026 West Nile virus season continued to show unusually extensive geographical spread across Europe. According to the ECDC report published on 15 October, 1,715 locally acquired human cases and 130 deaths had been reported in 13 EU/EEA countries by 7 October. Veterinary surveillance also recorded 510 outbreaks among equids and 591 among birds. Italy, Greece and France were among the most affected countries, while Belgium reported its first human infections. Although transmission had declined following the August–September peak, further cases were expected. ECDC – Seasonal surveillance of West Nile virus infections, 15 October 2026.

Epi insight

The Denominator Matters

In veterinary disease surveillance, the proportion of animals testing positive is frequently used to compare disease occurrence across villages, farms and districts. However, observed percentages are not equally informative when they are derived from substantially different sample sizes. Understanding the relationship between the numerator, denominator and statistical uncertainty is essential for valid epidemiological interpretation and evidence-based disease control.

A proportion is an estimate, not the underlying truth. Suppose a serosurveillance investigation identifies one seropositive pig among two tested in Village A and ten seropositive pigs among 40 tested in Village B. The observed seropositivity is 50% and 25%, respectively. Although Village A has the higher observed percentage, its estimate is based on substantially less information.

Under a simple binomial sampling model:

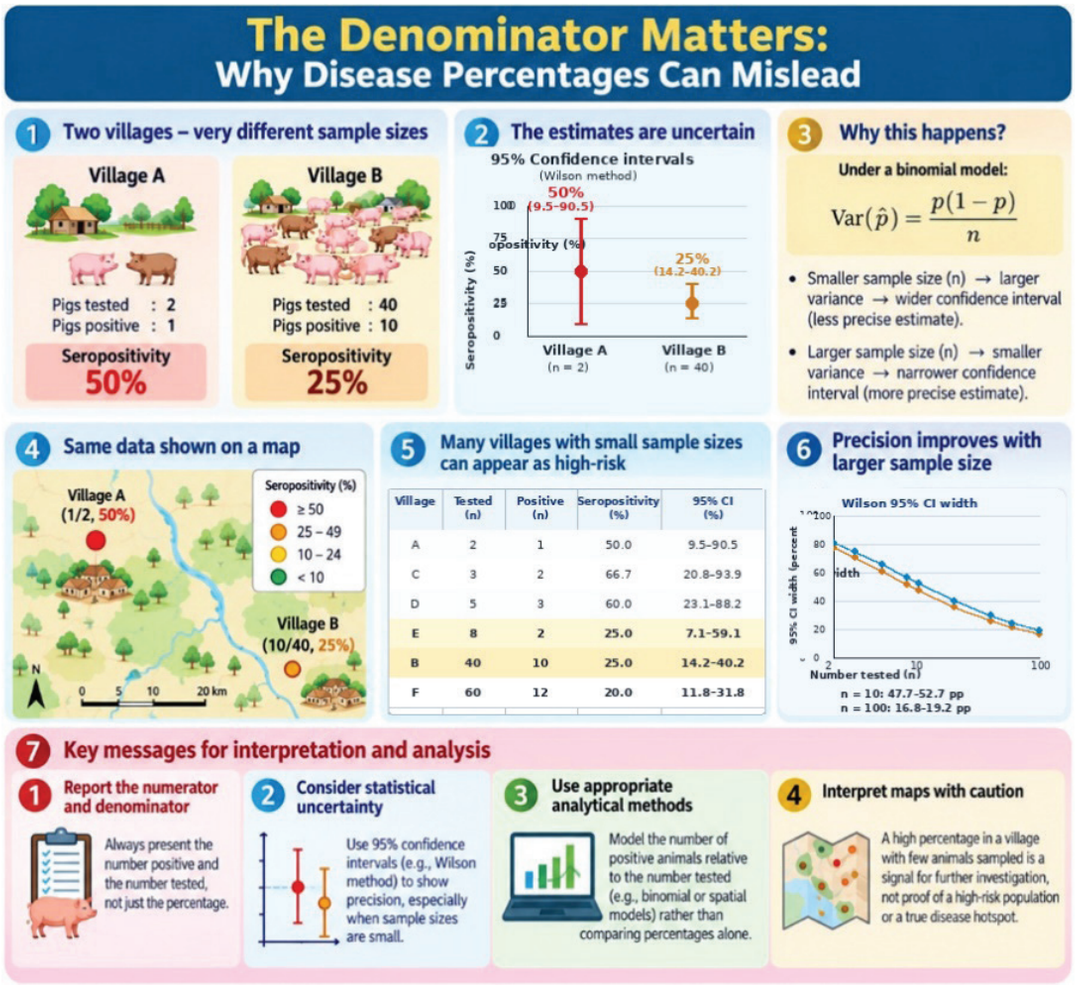
where n_i is the number of animals tested and p_i is the underlying seropositivity probability.

The observed proportion, , estimates this probability.

Under the binomial model, its theoretical sampling variance is: $Y_i \sim \text{Binomial}(n_i, p_i)$

Since the true probability p_i is generally unknown, its estimated sampling variance is obtained by substituting the observed proportion: $Var(p_i) \approx p_i(1 - p_i)/n_i$

This relationship demonstrates that, under the binomial model, larger sample sizes generally yield more precise estimates. For illustration, the Wilson 95% confidence intervals are 9.5–90.5% for Village A and 14.2–40.2% for Village B. The wide interval for Village A reflects considerable uncertainty despite its apparently high seropositivity.



How to Handle Unequal Sample Sizes in Epidemiological Analysis

1. **Confidence intervals:** Use Wilson 95% confidence intervals to communicate the precision of prevalence estimates, particularly with small sample sizes.
2. **Binomial regression:** Model the number of positive animals relative to the number tested, incorporating relevant factors such as age, season and management practices.
3. **Multilevel and spatial models:** Account for clustering within villages, herds or districts and assess geographical variation in seropositivity.
4. **Spatial cluster analysis:** Identify statistically significant disease clusters using methods such as the Bernoulli spatial scan statistic, while considering sampling design and population coverage.

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