

NIVEDI PULSE

NIVEDI PULSE - July 2026

ICAR-NIVEDI Celebrates 26th Foundation Day with a Vision to Become the Nation's Nerve Centre for Livestock Disease Intelligence

ICAR–NIVEDI celebrated its **26th Foundation Day** with great enthusiasm under the theme “**Advancing Animal Health Security through Science, Innovation, and One Health for VIKSIT BHARAT 2047.**” The programme brought together distinguished dignitaries, Directors and Directors-in-Charge of ICAR institutes in Bengaluru, scientists, staff, students and progressive livestock farmers. The celebrations were coordinated by Dr. V. Balamurugan, Principal Scientist, and presided over by Dr. Rajeshwari Shome, senior-most Principal Scientist. The programme began with hoisting of the institute flag and ceremonial tree planting by the Chief Guests, Dr. Narendra Kumar, IRS (Retd.), and Dr. Vivek Kapur, Penn State University, USA, along with Guest of Honour Dr. D. Hemadri, ADG (Animal Health), ICAR.

Dr. V. Balamurugan presented the institute's major achievements and highlighted its contributions to the control of important livestock diseases such as FMD, PPR, brucellosis and CSF. He also highlighted the WOAHP Reference Laboratories for PPR and leptospirosis and the institute's work in disease informatics, surveillance, risk mapping and early warning systems.

Dr. G. Govindaraj presented the **ICAR–NIVEDI Roadmap 2026–2031**, covering epidemiology, disease economics, diagnostics, genomics, artificial intelligence, climate-resilient animal health and digital surveillance. Dr. Vivek Kapur delivered the Foundation Day Lecture, highlighting NIVEDI's progress

from supporting rinderpest eradication to genome-based surveillance and precision epidemiology. Dr. D. Hemadri appreciated the institute's scientific contributions, externally funded projects and policy support.

Dr. Rajeshwari Shome reaffirmed NIVEDI's vision of becoming the nation's nerve centre for livestock disease intelligence. Dr. Narendra Kumar emphasized conservation of indigenous livestock breeds and scientific disease prevention.

Addressing the gathering, Dr. Narendra Kumar emphasized the importance of conserving indigenous livestock breeds while enhancing productivity through scientific disease prevention and management and highlighted the diverse animal wealth of India and efforts made by the veterinarians and research institutes in safeguarding health of animals.

As part of the celebrations, a one-day Workshop-cum-Scientist–Farmer Interaction on Livestock Health Issues and Advisory Services was organized under the DAPSC and DAPST programmes. A total of 105 livestock farmers interacted with scientists on livestock health, zoonotic diseases, and scientific dairy management. Beneficiary farmers received cow mats and milk cans to promote clean milk production and improved animal welfare, while progressive livestock farmers were felicitated for their outstanding achievements.



ICAR NIVEDI
Transforming Animal Health



The institute also honoured outstanding scientists, technical and administrative staff, research scholars, students, and contractual personnel for their exemplary

contributions. Important institute publications, including the Annual Report and Newsletter, were released during the function.



The celebration reaffirmed ICAR-NIVEDI's commitment to scientific excellence, innovation, stakeholder engagement, and national service, while strengthening its vision of becoming India's premier

Livestock Disease Intelligence Centre for evidence-based surveillance, forecasting, early warning, risk assessment, and policy support.

One-Day Workshop-cum-Scientist–Farmer Interaction

On the occasion of the ICAR-NIVEDI Foundation Day, a One-Day Workshop-cum-Scientist–Farmer Interaction on Livestock Health Issues and Advisory Services was organized under the DAPSC and DAPST programmes. The programme was hosted by Dr. Rajeshwari Shome, Principal Scientist ICAR-NIVEDI. Dr. G. Narayanan,

Senior Scientist and Chairman, DAPSC Committee, welcomed the gathering, while Dr. C.S. Sathish Gowda, Chairman, DAPST Committee, outlined the objectives of the workshop. A total of 105 farmers participated in the programme, including 65 Scheduled Caste farmers from Sugaturu and Doddagurgenahalli villages

of Kolar Taluk, and 40 farmers from Kurumarahalli village of Chintamani Taluk, Chikkaballapura District. Dr. Vijay Bhaskar, Joint Director, Karnataka Milk Federation (KMF), Bengaluru, delivered an expert lecture on the use of ethnoveterinary medicines for animal disease management, while Dr. Chethan Kumar, Senior Scientist, ICAR-NIVEDI, presented a talk on zoonotic diseases and their prevention and control. The interactive session provided an opportunity for farmers to discuss field-level livestock health issues directly with scientists and receive practical advisory services.

As part of the DAPSC and DAPST programmes, each beneficiary farmer was provided with one cow mat and one milk can to promote clean milk production, improved dairy management practices, and enhanced animal welfare. The workshop successfully strengthened scientist–farmer interaction, enhanced awareness on livestock health and zoonotic disease prevention, and encouraged the adoption of scientific animal husbandry

practices among the farming community.



INLEAD Project Annual Review Meeting-cum-Orientation Programme for Fellows in Livestock Epidemiology and Disease Modelling

The Annual Review Meeting of the INLEAD Project was successfully conducted from 2–5th July 2026, bringing together fellows, faculty members and programme partners for review, interaction and capacity building. As part of the Annual Review Meeting, an Orientation Programme for PhD and Master's INLEAD-GF Fellows in Livestock Epidemiology and Disease Modelling was organized over four days at ICAR-NIVEDI. The programme began with an insightful session on the role of economics in animal health and disease management. A Meet & Greet session on the second day provided an opportunity for fellows, faculty members and programme partners to strengthen academic interaction, networking and collaboration.

Technical sessions included hands-on training in epidemiology, QGIS and EpiCollect, helping

fellows develop practical skills in disease surveillance, spatial analysis and field data collection. Training in R programming focused on file management and spatio-temporal data analysis. The programme concluded with presentations by the fellows on their research topics, followed by constructive feedback from experts. The meeting and orientation activities were conducted under the guidance of Dr. Baldev Raj Gulati, Director, ICAR-NIVEDI. The INLEAD-GF Fellowship is jointly implemented by ICAR-NIVEDI, The Pennsylvania State University and The University of Warwick, with support from the Gates Foundation. The event provided a valuable platform for project review, interdisciplinary learning, professional networking and capacity building in advanced livestock epidemiology and disease modelling.



4th Annual Review Meeting of NADEN

The 4th Annual Review Meeting (ARM) of the National Animal Disease Epidemiology Network (NADEN) of ICAR-NIVEDI was held at MPT Palash Residency, Bhopal, Madhya Pradesh, during 9–10 July 2026. The meeting was inaugurated by Dr. Raghavendra Bhatta, Deputy Director General (Animal Science), ICAR, in the presence of Dr. Divakar Hemadri, Assistant Director General (Animal Health), ICAR, Dr. Umesh Sharma, President, Veterinary Council of India, Dr. B.S. Patil, Director, Department of Animal Husbandry, Government of Madhya Pradesh, Dr. B.R.

Gulati, Director, ICAR-NIVEDI (online), and Dr. Aniket Sanyal, Director, ICAR-NIHSAD. The meeting brought together NADEN zonal in-charges, Principal Investigators from NADEN centres across the country to review the progress of the NADEN during 2025–2026 and formulate strategies for strengthening animal disease surveillance.

The two-day meeting featured state-wise and zonal reviews, with discussions focusing on strengthening active and sentinel surveillance, improving data quality, harmonizing diagnostic protocols, enhancing laboratory networking, and ensuring timely disease reporting through the NADRES platform. Participants also finalized sentinel surveillance plans for priority diseases and discussed the implementation roadmap for NADEN Plus, the proposed next-generation animal disease intelligence network. The meeting concluded with recommendations to enhance surveillance quality, laboratory confirmation of disease outbreaks, capacity building, and collaboration with State Animal Husbandry Departments and national reference laboratories to support evidence-based animal disease control in India.



Strengthened One Health Preparedness through National Intermediate Field Epidemiology Training Programme

ICAR-NIVEDI hosted the Intermediate Field Epidemiology Training Programme (iFETP) from 13–17 July 2026 in collaboration with the National Centre for Disease Control (NCDC), Ministry of Health & Family Welfare, with technical support from the World Health Organization (WHO). The programme conducted simultaneously at 14 premier institutions

across India, trained over 250 public health professionals and epidemiologists to strengthen disease surveillance, outbreak response, and pandemic preparedness. ICAR-NIVEDI was the only veterinary institution among the participating centres, underscoring the critical role of veterinary epidemiology in advancing the One Health approach through integrated animal and human health

surveillance. The programme at ICAR-NIVEDI was inaugurated by Dr. Putturaju A. K., Regional Team Leader, WHO South India Regional Office. Dr. Ayana Basu (NCDC) welcomed the participants, while Dr. Mudassar Chanda, Senior Scientist, ICAR-NIVEDI, served as the Course Coordinator. A total of 14 public health professionals from Karnataka, Odisha, and Puducherry enrolled in the year-long programme covering field epidemiology, disease surveillance, outbreak investigation, and evidence-based public health practices under WHO mentorship. Addressing the participants, Dr. Baldev Raj Gulati, Director, ICAR-NIVEDI, emphasized the importance of transforming disease surveillance into actionable disease intelligence

and encouraged participants to become the next generation of “disease detectives” equipped to tackle emerging and zoonotic diseases through a One Health approach.



ICAR–NIVEDI Scientist Delivers Expert Talk at FAO PMP-AMR Workshop

Dr. Shivasharanappa N, Senior Scientist, delivered an expert lecture on “Challenges and Priorities of Antimicrobial Resistance (AMR) Mitigation in Livestock” during the FAO Progressive Management Pathway for AMR (PMP-AMR) Workshop, held from 14–17 July 2026 at Bhopal. The presentation highlighted key priorities for AMR mitigation, including antimicrobial stewardship, integrated AMR and antimicrobial use (AMU) surveillance, strengthening laboratory capacity, and promoting multisectoral collaboration through a One Health approach. The workshop focused on assessing the

implementation status of the Madhya Pradesh State Action Plan on AMR using the FAO PMP-AMR tool, identifying critical gaps, and prioritizing interventions to strengthen AMR mitigation in the livestock sector.



Hands-on Training on Ion Torrent™ GeneStudio™ S5 Whole Genome Sequencing Platform Conducted at VetGenome Hub

A two-day hands-on training programme on the Ion Torrent™ GeneStudio™ S5 Whole Genome Sequencing (WGS) platform was conducted at the VetGenome Hub, ICAR–NIVEDI, Bengaluru, on 20–21 July 2026. The training focused on enhancing technical expertise in next-generation sequencing (NGS) for microbial genomics and antimicrobial resistance (AMR) surveillance. Participants received practical training on operating the GeneStudio™ S5 platform and the complete WGS workflow. The programme strengthened institutional capacity in genomic surveillance, molecular epidemiology, and One Health research, supporting evidence-based disease

surveillance and AMR research initiatives through FAO India support under pandemic funds preparedness at ICAR–NIVEDI.



NIVEDI Seminar Club Organizes CEE Lecture on One Health and Emergency Disease Preparedness

The NIVEDI Seminar Club organized a Continuing Epidemiology Education (CEE) lecture on 27th July 2026 on the theme “Building Smarter Livestock Systems: A One Health Approach to Emergency Disease Preparedness.” The lecture was delivered by Dr. Sangeeta Rao, Professor, Colorado University, USA, who highlighted the importance of integrated One Health surveillance and collaborative preparedness strategies for strengthening livestock health systems against emerging and transboundary diseases, including highly pathogenic avian influenza (HPAI) in dairy cattle. The session emphasized multidisciplinary partnerships, field epidemiology training programmes, risk-based surveillance, and advanced epidemiological tools to improve emergency preparedness and response. The interactive discussion benefited scientists, research scholars, and students by promoting knowledge exchange and reinforcing ICAR–NIVEDI’s commitment to livestock disease epidemiology, capacity building, and evidence-based research. The programme was coordinated by Dr. Shivasharanappa N, Coordinator of the Club.



ICAR–NIVEDI Conducts One Health Awareness Programme and Leptospirosis Screening at Bannerghatta Biological Park

ICAR–NIVEDI, under the NCDC–National One Health Programme for Prevention and Control of Zoonotic Diseases (NOHP-PCZ), organized an Awareness Programme and One Health Screening for Leptospirosis

at Bannerghatta Biological Park on 15 July 2026 as part of the World Zoonoses Day observance. The programme was led by Dr. V. Balamurugan and Dr. H. B. Chethan Kumar along with the NCDC-NOHP-PCZ team. An interactive awareness session in the local language was conducted for zoo workers, animal keepers and supporting staff on occupational zoonotic diseases such as leptospirosis, rabies, anthrax and Kyasanur Forest Disease. The session covered disease transmission, occupational risks, preventive measures, biosafety and the One Health approach.

A technical session focused on integrated surveillance, laboratory diagnostics, sample collection and biosafety. Medical officers, veterinarians, scientists, microbiologists and laboratory personnel discussed strengthening intersectoral coordination for zoonotic disease preparedness. Wildlife, human, environmental and rodent samples were collected for laboratory investigation of leptospirosis and other zoonotic diseases. Supported by Dr. Prayag Hodigere Siddalingappa, Deputy Director, Bannerghatta Biological Park, the programme strengthened collaboration, awareness, surveillance and early diagnosis at the wildlife–human–environment interface.



Farmer Awareness Programme on El Niño Preparedness and Livestock Health

ICAR-NIVEDI in collaboration with ICAR- ICAR-Krishi Vigyan Kendra (KVK), Hirehalli, organized a farmer awareness programme on “Preparedness for El Niño: Safeguarding Livestock and Livelihoods” at D. Nagenahalli village, Koratagere Taluk, Tumakuru District, Karnataka. The programme sensitized farmers to the potential impacts of El Niño on livestock

production and health, with expert sessions covering heat stress mitigation, water and feed management, disease prevention, and climate-resilient livestock management practices. Participants were also introduced to the NADRES v2 livestock disease forewarning system, which provides advance alerts for 15 major livestock diseases up to two months in advance, enabling timely vaccination and implementation of preventive measures. A total of 65 farmers (38 men and 27 women) participated in the programme. The interactive sessions enhanced farmers' awareness of climate-smart livestock management, disease preparedness, and the effective use of early warning systems to minimize disease risks and improve livestock productivity under changing climatic conditions.



Superannuation Farewell of Dr. Rajeswari Shome at ICAR-NIVEDI

The superannuation farewell of Dr. Rajeswari Shome, Principal Scientist, ICAR-NIVEDI, was held on 31st July 2026 at the institute with great warmth and respect. The programme was attended by Dr. B. R. Gulati, Director, ICAR-NIVEDI, Dr. B. R. Shome, along with other family members of Dr. Rajeswari Shome, scientists, technical officers, administrative staff, students, and well-wishers, who gathered to celebrate her distinguished career spanning more than 33 years in the Agricultural Research Service. The programme commenced with a welcome address, followed by a presentation highlighting Dr. Rajeswari Shome's academic and professional journey. A distinguished microbiologist, she made significant contributions to research on brucellosis in livestock, strengthening the understanding of this important zoonotic disease and its control strategies. She also served as the Group Leader of the Bovine Disease Epidemiology Group Project, guiding multidisciplinary research and contributing to

disease surveillance and epidemiological investigations at the institute. Colleagues and students fondly recalled her scientific guidance, leadership, and commitment to excellence in research.



The Director, in his address, appreciated Dr. Rajeswari Shome's dedicated service, scientific contributions, and valuable role in advancing veterinary microbiology and epidemiology at ICAR-NIVEDI. As a mark of appreciation, she was felicitated by the institute. In her farewell remarks, Dr. Rajeswari Shome expressed her gratitude to the institute, colleagues, and staff for their unwavering support throughout her career and shared her memorable experiences at ICAR-NIVEDI. The programme concluded with a group photograph, making the occasion a memorable tribute to her remarkable professional journey and dedicated service.

NaaViC Strengthens Innovation and Entrepreneurship Ecosystem

NaaViC, the Agri-Business Incubation Centre of ICAR-NIVEDI, expanded its innovation and entrepreneurship outreach during July 2026 with the launch of the SHITIJ 2.0 Agri-Business Incubation Programme under the ICAR-NAIF-ABI Hub-and-Spoke model on 1st July 2026, with NaaViC serving as the Hub for the Animal Health and Production sector. The programme aims to nurture students, researchers, innovators, and aspiring entrepreneurs through mentoring, incubation, business development, and networking support to transform innovative ideas into sustainable startups.

As part of its outreach campaign, Team NaaViC organized a series of promotional bootcamps for SHITIJ 2.0 and the 11th Cohort Incubation Programme at Veterinary College, Bengaluru (14th July), College

of Horticulture, Hiriur (16th July), Veterinary College, Shivamogga, College of Agriculture, Hassan, and Veterinary College, Hassan (17th July), engaging more than 500 students, researchers, and farmers. The programmes highlighted innovation, startup opportunities, agribusiness incubation, and technology commercialization while encouraging participants to translate research and field-based innovations into scalable enterprises. During the outreach, the NaaViC team also interacted with the Deans of the College of Horticulture, Hiriur, and the College of Agriculture, Shivamogga, to explore collaborative initiatives for strengthening innovation and entrepreneurship.

To further promote the incubation ecosystem, Team NaaViC showcased its initiatives through an exhibition stall during the 69th Foundation Day celebrations of Veterinary College, Hebbal on 25th July 2026, creating awareness among students, alumni, faculty members, and researchers about incubation, mentoring, and funding opportunities.



On 28th July 2026, NaaViC achieved another milestone with the Copyright Registration of NOVICE (Physical/Virtual Incubation Space), reinforcing its commitment to developing indigenous digital platforms that strengthen the agribusiness innovation ecosystem. On the same day, students from East Point College of Pharmacy visited NaaViC for an exposure programme on agripreneurship and incubation, gaining first-hand experience of the institute's research, innovation, and startup ecosystem.

Through these initiatives, NaaViC continues to foster a vibrant innovation ecosystem by promoting entrepreneurship, technology commercialization, and startup development in animal health, agriculture, and allied sectors.

Disease Radar

Major One Health Events – July and Early August 2026

In July 2026, One Health threats converged across human, animal and environmental domains.

Ebola Outbreak in Africa

The Bundibugyo Ebola outbreak in the DRC became the largest of its kind on record (~3,200 cases, 1,400+ deaths), while Uganda saw no new cases since 21 June, and imported cases reached France and Germany via evacuated humanitarian workers (WHO, 2026; ECDC, 27 Jul 2026). Reference: WHO – Ebola Disease Outbreak News

Bird Flu Reaches New Zealand

New Zealand reported its first-ever H5N1 detection, in a wild seabird, marking the virus's arrival in a previously unaffected region (NaTHNaC, 15 Jul 2026). Reference: New Zealand Government – H5 bird flu confirmed in New Zealand

African Swine Fever in Mizoram

In India, African swine fever losses exceeding 72,000 pigs and ₹1,011 crore since 2021 prompted Mizoram to seek NDMA disaster status (Daily Pioneer, Jul 2026). Reference: Daily Pioneer – Mizoram seeks disaster status for African swine fever

Chandipura Virus in Gujarat

With the monsoon, Gujarat also reported a Chandipura virus (CHPV) outbreak — 22 child deaths and 35 confirmed cases among 184 suspected — prompting deployment of a National Joint Outbreak Response Team to Gujarat and Rajasthan (TechTimes, 5 Aug 2026; IANS, 5 Aug 2026). Reference: Times of India – Chandipura virus outbreak in Gujarat

These events show the importance of cooperation among doctors, veterinarians, environmental experts and government agencies.

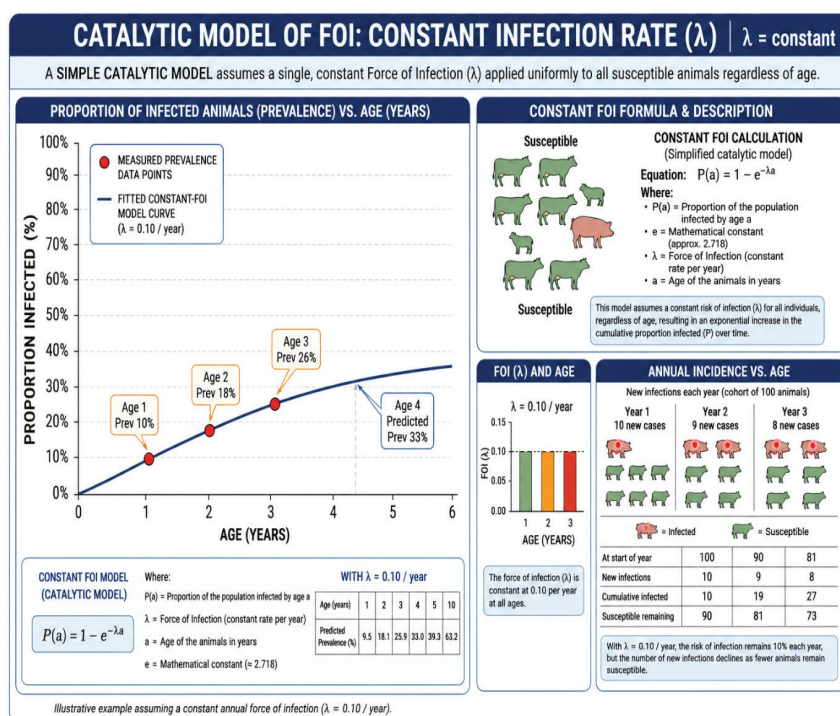
Epi Insights

Force of Infection (FOI)

Force of infection (FOI), also known as the hazard rate, refers to the rate at which susceptible individuals in a population acquire an infectious infection per unit time. The concept of estimating the force of infection as a key epidemiological parameter was first proposed by Hugo Muench in mathematical models of infectious diseases. FOI is commonly denoted by the Greek letter lambda (λ) and quantifies the instantaneous risk that a susceptible individual becomes infected over a specified period. It is typically expressed as a rate per unit time (e.g., per day, month, or year). Intuitively, the FOI increases with both the transmissibility of the pathogen and the prevalence of infection in the population. A high FOI indicates that susceptible individuals are exposed to infection more frequently and are therefore likely

to become infected earlier in life. Depending on the underlying epidemiological assumptions, FOI may be considered constant, age-dependent, or time-dependent. While early models generally assumed a constant FOI, more recent approaches allow FOI to vary with age and time and estimate it using both parametric and non-parametric methods.

FOI is a fundamental epidemiological parameter that supports the evaluation of disease control interventions, prediction of epidemic trajectories, assessment of transmission dynamics, design of effective prevention and control strategies, quantification of infection risk from multiple sources, and investigation of the influence of ecological, environmental, and social factors on disease transmission.



Editorial Team : V. Balamurugan, G. Narayanan, H. B. Chethan Kumar, Siju Susan Jacob
 Published by : Director, ICAR-NIVEDI, Bengaluru

Contact Details

ICAR-National Institute of Veterinary Epidemiology and Disease Informatics

Ramagondanahalli, Yelahanka, Bengaluru - 560 119, Karnataka.

Phone: 080-23093110, 23093111, 23093100

Email: director.nivedi@icar.org.in Website: www.nivedi.res.in

Follow us on https://x.com/icar_nivedi <https://www.facebook.com/icarnivediofficial/>

<https://www.linkedin.com/in/icar-nivedi/> <https://www.youtube.com/@icar-nivedi> https://www.instagram.com/icar_nivedi/