

# DEPARTMENT OF VETERINARY PUBLIC HEALTH & EPIDEMIOLOGY

## 1. INTRODUCTION

Veterinary Public Health comprises of all the community efforts applied for prevention of diseases, protection of life and enhancing efficiency and well being of man. Majority of human diseases have their reservoir in animals, hence prevention of human illnesses can best be practiced by eradicating such conditions from animals. Veterinary Public health is a bridge between activities of human medicine and veterinary medicine in making man healthy and thus elevating standard of living.

The department of Veterinary Public Health and epidemiology was started under establishment of Vanbandhu Veterinary College phase II programme (Year 2010-11) with the recruitment of one professor and one laboratory technician in June and April 2010, respectively.

The department imparts undergraduate teaching as per the guidelines specified by Veterinary Council of India. Graduate teaching covers courses on Milk & Meat hygiene, Food safety & Public Health, Veterinary Epidemiology & Zoonoses as well Environment & Environmental hygiene.

Post graduate teaching in the subject of veterinary public health is also started from 2010-11 as per the ICAR norms for P.G. Studies and several students are awarded the degrees.

## 2. OBJECTIVE

To inculcate skills in the graduates and post graduates through enriching knowledge of food hygiene, environmental hygiene and prevention and control zoonotic diseases.

## 3. MAJOR ACTIVITIES

### A) TEACHING:

#### 1. UNDER GRADUATE LEVEL:

The department imparts under graduate teaching by offering following courses:

Sr. No.	Course Number	Course Title	Credit	Semester/ Year
1	VPE-311	MILK & MEAT HYGIENE, FOOD SAFETY & PUBLIC HEALTH	2+1	5 <sup>th</sup> (3 <sup>rd</sup> Year)
2	VPE-321	VETERINARY EPIDEMIOLOGY & ZOONOSES	2+1	6 <sup>th</sup> (3 <sup>rd</sup> Year)
3	VPE-511	ENVIRONMENT & ENVIRONMENTAL HYGIENE	2+1	9 <sup>th</sup> (5 <sup>th</sup> Year)
4	VPH	VETERINARY PUBLIC HEALTH & EPIDEMIOLOGY	3+1	3 <sup>rd</sup> Professional year

## 2. POST GRADUATE LEVEL:

Following postgraduate courses are offered to Post Graduate and Doctoral level students:

Course Number	Course Name	Credit
<b>Master level courses:</b>		
VPH-601	ELEMENTS OF VETERINARY PUBLIC HEALTH	1+1
VPH-602	BACTERIAL AND RICKETTSIAL AGENTS OF PUBLIC HEALTH SIGNIFICANCE	2+1
VPH-603	VIRAL, FUNGAL AND PARASITIC AGENTS OF PUBLIC HEALTH SIGNIFICANCE	2+1
VPH-604	ZOONOSES AND PUBLIC HEALTH	2+1
VPH-605	PRINCIPLES OF FOOD HYGIENE AND SAFETY	2+1
VPH-606	FOOD-BORNE INFECTIONS AND INTOXICATIONS	2+1
VPH-607	MEAT AND MILK HYGIENE	2+1
VPH-608	ENVIRONMENTAL POLLUTION AND SAFETY	3+1
VPH-609	FISH, FISH PRODUCTS AND SEAFOOD HYGIENE	1+1
VPH-610	BIOTERRORISM AND DISASTER MANAGEMENT	1+1
VPH-691	MASTER'S SEMINAR	1+0
VPH-699	MASTER'S RESEARCH	20
<b>Doctoral level courses:</b>		
VPH-701	CURRENT TOPICS IN VETERINARY PUBLIC HEALTH	2+1
VPH-702	EMERGING AND REEMERGING ZOONOSES	2+1
VPH-703	QUALITY CONTROL OF ANIMAL FOOD PRODUCTS	2+1
VPH-704	OCCUPATIONAL HEALTH HAZARDS	2+1
VPH-705	DISPOSAL AND RECYCLING OF WASTE	2+1
VPH-706	BIOHAZARDS, BIOSECURITY AND DISASTER MANAGEMENT	2+0
VPH -708	ADVANCES IN ENVIRONMENTAL POLLUTION CONTROL	2+1
VPH -790	SPECIAL PROBLEM	0+2
VPH -791	DOCTORAL SEMINAR I	1+0
VPH -792	DOCTORAL SEMINAR II	1+0
VPH-799	DOCTORAL RESEARCH	45

### B) RESEARCH:

#### 1. Ongoing Research: One AGRESCO research project No: VPHE-1/2019.

Sr. No.	Title	Principle Investigator and Co-PIs
1	Molecular detection of Nocardia species in bovine raw milk and oral lavage of immunocompromised human cases.	Dr. R. Kumar Dr. C. V. Savalia Dr. I. H. Kalyani

#### 2. Research experiment concluded: AGRESCO research project No: VPHE-1/2015

Sr. No.	Title	Principle Investigator and Co-PIs
1	Detection of Classical Enterotoxigenic coagulase positive <i>Staphylococcus aureus</i> in bovine raw milk, dairy food products and Handlers' hand swabs.	Dr. R. Kumar Dr. C. V. Savalia Dr. I. H. Kalyani Dr. K. K. Sharma Dr. U. V. Ramani

**3. P.G. thesis research project:** Studies on The Occurrence of *Aeromonas* Spp. in market fish of Navsari city

**C) EXTENTION:**

1. Knowledge is being imparted on importance of communicable diseases, food hygiene and environmental hygiene through technical articles, radio and T.V. programmes, Krushi Mahotsava etc. .
2. ASCAD training courses are being conducted regularly for field veterinarians as well as livestock inspectors deputed by Department of Animal Husbandry, Gujarat State.

**4. MAJOR ACHIEVEMENTS:**

1. Dr. Savalia C. V., Professor of Vet. Public Health achieved “Best Teacher Award” for year 2014-15, offered at the 11<sup>th</sup> Annual Convocation of Navsari Agricultural University held on January 16, 2016.
2. Six M. V. Sc. and two Ph. D. students have submitted their Theses to Navsari Agricultural University.
3. Dr. Nayak Deepti N. awarded Chancellor’s Gold Medal for P.G. degree (2014-15) adjudged on the basis of merit and evaluation of thesis research work. (Major Guide: Dr. C. V. Savalia)
4. Department organized G.L.D.B. sponsored seminar on “Strategic Control of Zoonotic diseases in Livestock” on November 20, 2010.
5. Dr. C. V. Savalia worked as Director (I/C), Office of Director Student’s Welfare, Navsari Agril. University, from 20.10.2016 to 30.11.2020.

**5. FACULTY INFORMATION:**

Sr.	Name	Designation	Degree	Contact information
1	Dr. C.V. Savalia	Professor & Head	Ph. D	+91 9427856293 cvsavalia@nau.in
2	Dr. R. Kumar	Assistant Professor	Ph. D	+91 9723902456 rajeev37171@gmail.com

**6. FACILITIES:** The department is having well equipped under graduate and post graduate laboratories facility.

**7. POST GRADUATE RESEARCH:**

Sr. No.	Title	Name of student	Degree/Year	Major Guide
<b>Doctoral theses:</b>				
1	Studies on The Prevalence and Molecular characterization of <i>Listeria</i> Spp. isolated from Foods of Animal Origin.	Ms. Deepti N. Nayak {Reg. No: 04-1128-2011}	Ph. D. 2014	Dr. C. V. Savalia
2	Sero-Epidemiology and Molecular Studies of <i>Leptospirosis</i> in Livestock and Human in Navsari District of	Mr. Deepak P. Kshirsagar {Reg. No: 04-1193-2012}	Ph. D. 2015	Dr. C. V. Savalia

**Master's theses:**

1	Isolation, Identification, Molecular characterization and Human Health Significance of <i>Escherichia coli</i> from Fresh water Fish.	Mr. Bhavesh I. Prajapati {Reg. No: 04-0723-2010}	M.V.Sc. 2012	Dr. C. V. Savalia
2	Study On The Occurrence of some Metal residues of Public Health Concern in Fish ( <i>Asian Seabass</i> ).	Mr. Rajesh N. Gelani {Reg. No: 04- 0712-2010}	M.V.Sc. 2012	Dr. C. V. Savalia
3	Studies on Occurrence of <i>Staphylococcus aureus</i> in milk of Surti goats.	Mr. Sagar A. Patel {Reg. No. 2040414017}	M.V.Sc. 2016	Dr. C. V. Savalia
4	Study on Incidence of <i>Vibrio parahaemolyticus</i> in Shrimp.	Mr. Rekhenkumar K. Patel {Reg. No. 2040415011}	M.V.Sc. 2017	Dr. C. V. Savalia
5	Isolation, identification and molecular characterisation of <i>Bacillus cereus</i> in raw chicken meat	Mr. Alpeshkumar P. Suthar {Reg. No. 2040416015}	M.V.Sc. 2018	Dr. R. Kumar
6	Determination of Fluroquinolones, Gentamicin and Tetracycline resistance pattern and residual effect against selected milk borne	Mr. Nishantkumar M. Patel {Reg. No.2040417014}	M.V.Sc. 2019	Dr. R. Kumar

**8. RESEARCH RECOMMENDATIONS: 2 (TWO)****8.A: Recommendation for Farmer's community/Animal owners:**

ગાય અને ભેંસ ના કાચા દૂધ, દૂધ ની બનાવટો અને દૂધની હેરફેર કરતા માણસો ના હાથ દ્વારા બહુવિધ એન્ટીબાયોટિક્સ પ્રતિરોધકતા ધરાવતાં સ્ટેફાઇલોકોકસ ઓરીયસ જીવાણુનું સંભવિત જોખમ પોતાને તેમજ ઉપભોક્તાને રહે છે. તેથી દૂધની હેરફેર તથા દૂધની બનાવટો બનાવવાના વિવિધ સ્તરે સ્વચ્છતા જાળવણી માટે પશુપાલકોને ભલામણ કરવામાં આવે છે.

**8.B: Recommendation for Scientific community:**

Bovine raw milk and dairy products contained  $3.0 \times 10^4$  -  $4.8 \times 10^7$  CFU/ml (gm) coagulase positive *Staphylococcus aureus* is widely prevalent in the handlers hand. Milk, its products and handlers hand serve as possible source of health hazards of methicillin resistant *Staphylococcus aureus* and staphylococcal enterotoxins.

**9. TRANSFER OF TECHNOLOGIES: NIL**

**10. FUTURE PLAN:** Research work on food borne and zoonotic pathogens of regional interest.

**11. CONTACT INFORMATION:****Address for correspondence:**

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