

# Postgraduate Diploma

## Public Health Epidemiology for Nursing





## Postgraduate Diploma Public Health Epidemiology for Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-public-health-epidemiology-nursing](http://www.techtute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-public-health-epidemiology-nursing)

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# 01

# Introduction

Epidemiology has become a fundamental science in Public Health, as it allows us to understand the distribution, frequency and determinants of pathologies in populations. According to the World Health Organization, non-communicable diseases (such as cancer and diabetes) account for 71% of all deaths globally. In this context, nurses have a crucial role to play in being at the front line of care and being responsible for the collection, analysis and interpretation of epidemiological data. It is therefore essential that they remain at the forefront of the latest developments in this field. To help them with this task, TECH implements an online university program focused on the latest innovations in Clinical Epidemiology.



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*Thanks to this Postgraduate Diploma, based on Relearning, you will apply the most sophisticated scientific methods to solve Public Health problems”*



The role of Nursing in the field of Public Health has expanded considerably in recent years, encompassing not only direct patient care, but also active participation in epidemiological surveillance and analysis. In this sense, the use of epidemiological methods allows professionals to identify trends in the health of the population and to design the most appropriate intervention strategies. However, this requires nurses to have a deep understanding of subjects such as Health Evaluation or Research Methodology in Epidemiology.

Within this framework, TECH has developed an innovative Postgraduate Diploma in Public Health Epidemiology for Nursing. Conceived by experts in this field, the academic itinerary will delve into the design of specific intervention studies, taking into account aspects such as the promotion of critical thinking and analytical skills. At the same time, the syllabus will delve into the analysis and interpretation of results using tools such as text analysis software and Artificial Intelligence. In addition, didactic materials will provide innovative strategies for health promotion, disease prevention and the promotion of healthy lifestyles in the community.

For this update, nurses will be provided with a 100% online platform and a variety of multimedia resources. In turn, TECH's Relearning methodology will favor the development of competencies and the mastery of complex concepts in a faster, more efficient and flexible way. All this with a university degree that will not be subject to rigid schedules so that each graduate can choose the time and place to focus on this Postgraduate Diploma. The only requirement is that students have a digital device (such as a cell phone, tablet or computer) to enter the Virtual Campus and access a myriad of didactic resources characterized by their dynamism.

This **Postgraduate Diploma in Public Health Epidemiology for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical case studies presented by experts in Public Health and Health Management
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning.
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Study from the comfort of your home and update your knowledge online with TECH Global University, the biggest online university in the world"*

“

*You will delve into the Salutogenesis approach, which will allow you to promote the health of your patients in a holistic way”*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will implement advanced prevention and disease control strategies based on epidemiological data.*

*The university program will include real case studies and exercises to bring the development of the program closer to routine clinical practice.*



# 02 Objectives

Through this Postgraduate Diploma, nursing staff will have a solid understanding of the fundamentals of Public Health Epidemiology. In this sense, graduates will incorporate into their daily practice the most advanced techniques for data management in this field into their daily practice. In turn, professionals will apply epidemiological methods for the identification, monitoring and control of diseases. They will also enhance their communication skills in order to effectively convey epidemiological findings to various audiences.





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*You will acquire competencies to collect, analyze and interpret epidemiological data in a rigorous manner”*



## General Objectives

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- ♦ Develop a broad and comprehensive conceptual framework of the situation, challenges and needs of Public Health in the 21st century
- ♦ Examine the international and global framework of Public Health policies
- ♦ Determine the key factors for a correct communication in health crisis: crisis communication and communication crisis
- ♦ Identify the theoretical and methodological framework for evaluation in Public Health
- ♦ Identify the steps to be followed for disease assessment using epidemiological data
- ♦ Compile the research methodology related to disease surveillance
- ♦ Identify the main risk and protective factors in communicable and non-communicable diseases
- ♦ Analyze the importance of quality assessment of intervention studies
- ♦ Develop the fundamentals of clinical epidemiology, measurement of frequency and distribution of diseases
- ♦ Critically evaluate the efficacy and effectiveness of clinical interventions, pharmacological treatments, surgical interventions and prevention strategies
- ♦ Fundamentals of the principles of the epidemiological method
- ♦ Fundamentals of the principles of health promotion, social determinants of health, health-related behavioral theories, and strategies to promote healthy lifestyles and environments
- ♦ Analyze the main health risks for different vulnerable groups
- ♦ Implement a holistic and integrative vision in the impact assessment of environmental risks on health protection





## Specific Objectives

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### Module 1. Clinical Epidemiology

- ◆ Develop the ability to identify and describe the main components of an intervention study, as well as to determine its different types
- ◆ Analyze the importance of quality assessment of intervention studies
- ◆ Compile examples of good- and poor-quality intervention studies
- ◆ Evaluate the methodology and design of pragmatic and explanatory clinical trials
- ◆ Analyze the different phases of the design of diagnostic test validity studies and the methodological quality and correctness of these studies
- ◆ Provide a basis for the quality and methodological correctness of prognostic factor studies.
- ◆ Introduce patient safety as a key concept in quality healthcare
- ◆ Propose activities for the evaluation of Public Health plans, implementing strategies based on scientific evidence

### Module 2. Research Methodology in Epidemiology

- ◆ Determine the main univariate statistical techniques
- ◆ Differentiate between univariate and multivariate analyses
- ◆ Develop the main multivariate techniques
- ◆ Calculate incidence and prevalence
- ◆ Establish statistical packages for data analysis
- ◆ Apply qualitative methodology
- ◆ Design qualitative research
- ◆ Conduct health study designs
- ◆ Analyze and interpret results
- ◆ Use ethical principles in epidemiological research

### Module 3. Health Promotion and Evaluation

- ◆ Analyze the relationship between literacy and health, identifying how health literacy can improve population health outcomes
- ◆ Collaborate with health institutions and organizations to integrate health literacy into public health policies and programs
- ◆ Identify and understand the main concepts and rationale of Salutogenesis as a health promotion approach
- ◆ Compare different models of health assets to understand how individual and collective resources and capabilities influence health and well-being
- ◆ Encourage networking and interdisciplinary collaboration between professionals from health, social services, education and other sectors
- ◆ Raise awareness of the importance of community participation, empowerment and health equity as fundamental principles for improving quality of life
- ◆ Promote critical reflection on health policies and programs at the community and primary care levels
- ◆ Analyze the ethical framework and the principles of equity in community intervention programs in Public Health



*Download all the contents of this Postgraduate Diploma, such as specialized readings and multimedia material, even after you have completed the program"*

# 03

# Course Management

In order to provide the most complete university programs, TECH carries out a thorough process to form its teaching staff. For the design and delivery of this Postgraduate Diploma, TECH has a first class team, made up of specialists in Public Health and Health Management. These professionals have a vast professional experience, where they have been part of reference health institutions. Thanks to this, they have designed didactic materials defined both by their quality and their full applicability to the demands of the current labor market. Therefore, graduates will enjoy an experience that will optimize their clinical practice considerably.





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*You will be able to consult your doubts directly with the teaching staff, composed of Public Health professionals, resulting in a personalized tutoring according to your own demands”*



## Management



### Ms. Ruiz Redondo, Julia María

- ◆ Coordinator of the National Working Group on Public Health 2.0 in the SEMG
- ◆ Coordinator of the General Directorate of Public Health in the Ministry of Health of Castilla-La Mancha.
- ◆ Coordinator of the Regional Advisory Group on Immunization at the Regional Ministry of Health of Castilla-La Mancha
- ◆ Nurse Inspector in the Management of Coordination and Inspection of Castilla-La Mancha in the SESCOAM
- ◆ Nurse of Specialized Care in the Hospital Emergency Area at the General Hospital of Tomelloso
- ◆ Master's Degree in Medical Management and Clinical Management by the UNED, ISCIII, National School of Health
- ◆ Master's Degree in Vaccines from the Catholic University of San Antonio de Murcia
- ◆ Master's Degree in Specialized Emergency Nursing Care, Critical Patient Area and Post-Anesthesia Care by the University of Valencia
- ◆ Master's Degree in Nursing Services Management from the UNED
- ◆ Senior Healthcare Management Program from San Telmo Business School
- ◆ Graduate in Nursing from the Catholic University of Avila
- ◆ Diploma in Nursing from the University of Jaén

## Professors

### Dr. Mera Cordero, Francisco

- ♦ Director of the Precision Medicine Unit of Long Covid and Post Viral Syndromes at Blue Healthcare
- ♦ Clinical Director and Collaborating Researcher of the study "ACE 2 in Post COVID Syndrome" of the Severo Ochoa Molecular Biology Center
- ♦ Emergency Physician in Assistència Sanitària
- ♦ Master's Degree in Diabetes and Nutrition by the Francisco de Vitoria University
- ♦ Degree in Medicine and General Surgery from the University of Zaragoza
- ♦ Presenter in the Health Dissemination Channel COVID Persistent in Medicina TV
- ♦ Presenter in Iberoamerican Channel @AIREyVIDA2021
- ♦ Member of the Board of the Spanish Network for Research in Persistent COVID
- ♦ Member of the CIBER POSTCOVID Group of the Carlos III Institute

### Dr. Álvarez Sobrado, Cristina

- ♦ Family and Community Medicine Physician at the Sarria Health Center
- ♦ Physician at the Domusvi Monforte and Domusvi Chantada Homes for the Elderly
- ♦ Master's Degree in Clinical Medicine from the Camilo José Cela University
- ♦ Degree in Medicine from the University of Santiago de Compostela

### Dr. Aboal Alonso, Julia María

- ♦ Family and Community Medicine Physician at the Sagrado Corazón Health Center
- ♦ Participant in the implementation and coordination of the Community Project "Caring for those who care" with ProCC (Community Corrective Processes) methodology
- ♦ Graduate in Medicine from the University of Santiago de Compostela.

### Dr. Rodríguez Ledo, María Pilar

- ♦ President of the Territorial Research Ethics Committee of Santiago-Lugo.
- ♦ National Coordinator of the Research Methodology and Support Working Group of the Spanish Society of General and Family Physicians (SEMG)
- ♦ Deputy Medical Director of the Integrated Management Structure of Lugo, Cervo and Monforte
- ♦ Responsible for the Innovation Node in the Integrated Management Structure of Lugo, Cervo and Monforte
- ♦ Responsible for the Simulation Classroom at the Integrated Management Structure of Lugo, Cervo and Monforte
- ♦ Vice-secretary of the Official College of Physicians of Lugo
- ♦ Member of the National Commission of the Specialty of Family Medicine, as Advisor to the Ministry of Health, Social Services and Equality.
- ♦ Specialist in Family and Community Medicine
- ♦ Doctor of Medicine from the University of A Coruña
- ♦ Master's Degree in Drug Addictions and AIDS by the Official College of Physicians of Malaga and the Institute for Research in Social Sciences
- ♦ Master's Degree in Design and Statistics in Health Sciences by the Autonomous of Barcelona
- ♦ Graduate in Medicine and Surgery from the University of Barcelona
- ♦ Member of: Foundation for Research and Training of the Spanish Society of General and Family Physicians (FIFSEMG), SEMG-Solidaria Foundation and UNICEF

**Dr. Pérez Escanilla, Fernando**

- ♦ Family Physician at the San Juan Health Center in Salamanca
- ♦ Head of the Venous Insufficiency Group of the Spanish Society of General and Family Physicians
- ♦ Local Head of Health and Coordinator of the Health Centers of Aldeanueva del Camino and North Zone of Cáceres
- ♦ Regular speaker at international scientific congresses, such as the Congress of Clinical Ultrasound
- ♦ Gold Medal awarded by the Extremadura Health Service
- ♦ First Prize for "Best Research Project" of the Spanish Society of General and Family Physicians for "Clinical Ultrasound Classroom in Primary Care"
- ♦ Medal to the Collegiate Merit of the Illustrious Colleges of Physicians of Cáceres and Badajoz
- ♦ Award for Excellence from the San Juan Health Center
- ♦ Degree in Medicine and Surgery from the University of Salamanca

**Dr. Maya, Roberto**

- ♦ Primary Care Physician Zorita Health Center
- ♦ Family and Community Physician in the Family and Community Medicine Teaching Unit of the Cáceres Health Area
- ♦ Master's Degree in Emergencies, Emergencies and Catastrophes from the Universidad San Pablo-CEU
- ♦ Master's Degree in Medical Emergencies from the University of Guayaquil
- ♦ Degree in Medicine from the Faculty of Medical Sciences of the State University of Guayaquil

**Dr. Chertkoff, Liliana**

- ♦ Medical Manager of Health Management and Medical Audit Consulting in CHKconsultores
- ♦ Medical Advisor, Health Management in several institutions and associations
- ♦ Advisor to the Association of Municipal Doctors of Buenos Aires
- ♦ Medical Trustee at the Superintendence of Health Insurance of the Nation, Argentina
- ♦ Coordinator at the Department of Pediatrics, National University of Buenos Aires Teaching/ Research
- ♦ Coordinator of Teaching, Research and Rotating Internship at the National University of Buenos Aires
- ♦ Advisor and Rapporteur in the Health Commission for the Senate of the Province of Córdoba, Argentina.
- ♦ Researcher by competition at the Chair of Preventive and Social Medicine, Faculty of Medical Sciences, National University of Córdoba
- ♦ Professor and researcher at the Argentine Society of Pediatrics Adolescence Committee
- ♦ Temporary professor at the Pan American Health Organization
- ♦ Head of the Integral Adolescence Service at the Josefina Priour Hospital
- ♦ General Practitioner in Public and Private Hospitals
- ♦ Medical Surgeon by the Faculty of Medical Sciences of the National University of Cordoba Argentina
- ♦ Diploma in Public Health from the National University of Cordoba, Argentina
- ♦ Master's Degree in Sociology, Faculty of Social Sciences, National University of Córdoba, Argentina
- ♦ Degree in Medical Auditing University Institute Hospital Italiano Buenos Aires
- ♦ Member of the Argentine Society of Pediatrics

**Dr. Paulés Cuesta, Isabel María**

- ♦ Family and Community Physician at the Caspe Health Center
- ♦ Family and Community Physician at the Gallur Health Center
- ♦ Primary Care and Hospital Care Nurse in the Aragonese Health Service
- ♦ Specialist in Family and Community Medicine by the Teaching Unit of Primary Care
- ♦ Primary Care and Family and Community Care of Huesca
- ♦ Master's Degree in Emergencies in Primary Care by the CEU Cardenal Herrera University
- ♦ Official Master's Degree in Genetic, Nutritional and Environmental Determinants
- ♦ Growth and Development by the University of Zaragoza
- ♦ Degree in Medicine from the European University of Madrid
- ♦ Postgraduate Diploma in Nursing from the University of Zaragoza

**Dr. Durán Martínez, Carlos Yair**

- ♦ Vice-Secretary of the Spanish Society of General and Family Physicians (SEMG)
- ♦ Family and Community Physician at the Continuous Care Point (PAC) of O Barco de Valdeorras, Sanitary Area of Ourense, Verín and O Barco de Valdeorras, Servizo Galego of Saúde (SERGAS)
- ♦ Coordinator of the SEMG Digital Health Working Group
- ♦ Family and Community Physician in Bierzo, Castilla and León Health Care Management
- ♦ Medical Intern at the Rural Medical Unit 152 Vicente Guerrero of the Mexican Institute of Social Security
- ♦ University Specialist in Digital Health at the University Rey Juan Carlos
- ♦ Master's Degree in Palliative Care by the Pontifical University of Salamanca
- ♦ Degree in Medicine and Surgery from La Salle University, Mexico

**Dr. Bendek Quevedo, Laura Patricia**

- ♦ Family and Community Physician at the Toreno Health Center
- ♦ Family and Community Physician at the Health Care Management of El Bierzo
- ♦ Emergency Physician at the El Bierzo Hospital in Ponferrada
- ♦ General Practitioner, Betania Special Care Unit, Fundación Valle del Lili, Colombia del Lili Foundation, Colombia
- ♦ General Practitioner at Imbanaco Medical Center, Colombia
- ♦ Specialist in Family and Community Medicine by the Multiprofessional Teaching
- ♦ Unit of Family and Community Care of León, Ponferrada
- ♦ Master's Degree in Palliative Care by the Pontifical University of Salamanca
- ♦ University Specialist in Digital Health at the University Rey Juan Carlos
- ♦ Degree in Medicine and Surgery from the Universidad del Valle, Colombia

**Dr. Pérez Rodríguez, Natalia**

- ♦ Family and Community Medicine Physician at the Canary Islands Health Center
- ♦ Coordinator of the community project "Caring for those who care" with ProCC (Community Corrective Processes) methodology
- ♦ Manager of Community Action for Health (I Edition) by the Carlos III Health Institute
- ♦ Health Equity Manager Learning with the gypsy people (II Edition) by the Carlos III Health Institute
- ♦ Manager of Local Health (VII Edition) by the Carlos III Health Institute
- ♦ Degree in Medicine from the University of Santiago de Compostela

**Dr. Losada Salamanca, Diana Carolina**

- ♦ Palliative Medicine Physician, Palliative Care Unit at Hospital Virgen de la Luz
- ♦ Emergency Physician at the Hospital Virgen de la Luz.
- ♦ Master's Degree in Bioethics by the Catholic University of Valencia
- ♦ Master's Degree in Palliative Care for Medicine by the CEU Cardenal Herrera
- ♦ Expert in Individualized Palliative Care for Medicine
- ♦ Expert in Clinical Management of the Palliative Care Patient For Medicine
- ♦ Expert in Psychosocial Aspects in the Palliative Patient For Medicine
- ♦ Medical Specialist in Family and Community Medicine (2020)
- ♦ Degree in Medicine and Surgery from the Pontifical Javeriana University

**Dr. Silva Contreras, Javier**

- ♦ Head of the Preventive Medicine Service of the Virgen de la Luz Hospital
- ♦ Master's Degree in Public Health and Healthcare Management, University of Valencia
- ♦ Master's Degree in Infectious Diseases and Antimicrobial Treatment by the Cardenal Herrera University
- ♦ Specialist in Vaccines by the University of Santiago de Compostela.
- ♦ Specialist in Nosocomial Infections by the EUROINNOVA Postgraduate Training Center
- ♦ Specialist Doctor in Preventive Medicine and Public Health
- ♦ Degree in Medicine and Surgery from the Pontifical Javeriana University

**Dr. Sánchez Borrego, Beatriz**

- ♦ Specialist in Family and Community Medicine
- ♦ Master's Degree in Emergency Medicine, Emergencies and Catastrophes by the CEU Cardenal University
- ♦ Specialist in Family and Community Medicine
- ♦ Graduate in Medicine from the University of Salamanca



*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*





# 04

## Structure and Content

Through this Postgraduate Diploma, nurses will acquire in-depth knowledge of the main epidemiological methods. The syllabus will address in detail the evaluation of the quality of interventional studies in Epidemiology, taking into account factors such as ethical aspects of research or key design elements. In addition, the syllabus will enable graduates to provide more personalized attention. In line with this, the program will delve into the digital analysis of qualitative data using emerging technologies such as Artificial Intelligence.



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*A syllabus at the forefront of academic education that will provide you with the latest knowledge in Digital Qualitative Data Analysis”*

## Module 1. Clinical Epidemiology

- 1.1. Design and Quality Assessment of Intervention Studies in Epidemiology
  - 1.1.1. Intervention Studies, Types and Key Design Elements
  - 1.1.2. Ethical Aspects of Intervention Research
  - 1.1.3. Design of Specific Intervention Studies
  - 1.1.4. Tools for Assessing the Quality of Intervention Studies
  - 1.1.5. Critical Appraisal of Intervention Studies
  - 1.1.6. Importance of Design and Quality Assessment
- 1.2. Pragmatic vs. Explanatory Randomized Clinical Trials
  - 1.2.1. Differentiation Between Pragmatic and Explanatory Clinical Trials
  - 1.2.2. Ethical Implications of Each Approach
  - 1.2.3. Critical Evaluation of the Methodology and Design of Each Type of Trial
  - 1.2.4. Application of Knowledge to Clinical Practice and Research
  - 1.2.5. Promotion of Critical Thinking and Analytical Skills
  - 1.2.6. Design and Conduct of Clinical Studies
- 1.3. Design of Diagnostic Test Studies
  - 1.3.1. Selection of the Study Population and Definition of Inclusion and Exclusion Criteria
  - 1.3.2. Determination of the Study Design and Selection of the Reference Methodology
  - 1.3.3. Calculation of Diagnostic Accuracy and Analysis of Results
- 1.4. Evaluation of the Quality of a Diagnostic Test Study
  - 1.4.1. Study Validity Analysis
  - 1.4.2. Evaluation of the Accuracy of the Diagnostic Test
  - 1.4.3. Analysis of the Clinical Utility of the Diagnostic Test
- 1.5. Design and Quality Assessment of Prognostic Factor Studies
  - 1.5.1. Selection and Definition of Prognostic Factors
  - 1.5.2. Study Design and Selection of the Study Population
  - 1.5.3. Evaluation of the Quality of the Study and the Prognostic Model
- 1.6. Evidence-based Clinical Recommendations: GRADE 1
  - 1.6.1. Systematic Review of the Scientific Literature Identification of Clinical Recommendations
  - 1.6.2. Quality of Evidence and Strength of Recommendations
  - 1.6.3. Clinical Recommendations Applicable to Clinical Practice
  - 1.6.4. Development of Clinical Protocol or Clinical Guideline Based on the Identified Recommendations
  - 1.6.5. Implementation and Follow-up of the Clinical Protocol or Guideline in Patient Care Evidence and Focus on Improving Clinical Outcomes
  - 1.6.6. Periodic Evaluation, through Monitoring of Clinical Outcome Indicators and Feedback from the Health Professionals Involved
- 1.7. Evidence-based Clinical Recommendations: GRADE 2
  - 1.7.1. Analysis and Synthesis of the Available Evidence in the Scientific Literature for the Development of Recommendations
  - 1.7.2. Identification and Evaluation of the Quality of the Relevant Studies that Support the Clinical Recommendations
  - 1.7.3. Application of the Principles of the GRADE Methodology to Establish the Strength and Certainty of Clinical Recommendations
  - 1.7.4. Developing Clinical practice Guidelines that Incorporate Evidence-based Recommendations and that are Useful for Clinical Decision Making
  - 1.7.5. Periodic Updating and Revision of Clinical Recommendations Based on the Available Scientific Evidence
- 1.8. Evaluation of the Quality of Care
  - 1.8.1. Quality Criteria and Standards from the Point of View of Safety
  - 1.8.2. Evaluation of the Effectiveness of the Results obtained through the Actions Evaluated of the Actions Evaluated and their Components
  - 1.8.3. Measurement of Patient Outcomes and Experiences, Patient-Reported Outcome Measures (PROM) and Patient-Reported Experience Measures (PREM)
  - 1.8.4. Indicators for Assessing the Degree of Involvement, Participation and Satisfaction of Healthcare Professionals
- 1.9. Incorporation of Patients' Values and Preferences: Shared Decisions
  - 1.9.1. Effective Communication and Understanding of Values and Preferences
  - 1.9.2. Education and Counseling on Treatment Options
  - 1.9.3. Facilitation of Shared Decision Making



- 1.10. Patient Safety
  - 1.10.1. Identification and Recording of Adverse Events
  - 1.10.2. Analysis of Errors and Underlying Causes
  - 1.10.3. Implementation of Corrective Actions and Prevention Measures

## Module 2. Research Methodology in Epidemiology

- 2.1. Biostatistics: Univariate, Bivariate and Multivariate Analysis
  - 2.1.1. Types of Variables
  - 2.1.2. Normality Study of a Distribution. Parametric and Non-parametric
  - 2.1.3. Dependent and Independent Variables. Confounding Factors
  - 2.1.4. Identification of the Necessary Statistical Tests
- 2.2. Models and Methods in Multivariate Statistics of Dependence and Interdependence: Statistical Inference Standardization and Prediction Multiple Linear Regression Regression and Cluster Analysis
  - 2.2.1. Multivariate Models
  - 2.2.2. Multivariate Models: Multiple Linear Regression
  - 2.2.3. Cluster Analysis
- 2.3. Models and Methods in Multivariate Structural Statistics: Logistic Regression, Poisson Regression, Survival Analysis and Longitudinal Data. Kaplan-Meier and Log-Rank Statistics
  - 2.3.1. Multivariate Models: Logistic Regression
  - 2.3.2. Kaplan-Meier and Log-Rank Survival Analysis
  - 2.3.3. Poisson Regression
- 2.4. Incidence and Prevalence Models in Public Health
  - 2.4.1. Incidence Studies
  - 2.4.2. Prevalence Studies
  - 2.4.3. Risk Analysis
- 2.5. Computer Software: Advanced Statistical Analysis with SPSS Package
  - 2.5.1. Statistical Packages: R®, STATA® and Epidat®
  - 2.5.2. Use of the SPSS® Package
  - 2.5.3. Interpretation of the Results of Statistical Analysis Performed by SPSS® and Evidence-based Decision Making
  - 2.5.4. Effective Communication of Statistical Findings to Specialized and Non-Specialized Audiences.
- 2.6. Qualitative Methodology Applied to Public Health: Theoretical, Conceptual, and Ethical Aspects
  - 2.6.1. Qualitative Evaluation Applied to Public Health
  - 2.6.2. Techniques of Qualitative Research Applied to Public Health
  - 2.6.3. Collection, Analysis and Interpretation of Qualitative Data in Public Health Studies: Validity, Reliability and Generalization of the Results
  - 2.6.4. Ethical Principles: Protection of Participants' Confidentiality and Management of Potential Ethical Conflicts
  - 2.6.5. Integration of the Qualitative Perspective in the Planning, Implementation, and Evaluation of Public Health Programs and Policies: Design of Effective Interventions Focused on the Needs of the Population
- 2.7. Design and Phases of Qualitative Research in Public Health. Sampling Designs
  - 2.7.1. Design and Phases of Qualitative Research
  - 2.7.2. Sampling
  - 2.7.3. Elaboration and Justification of the Data Collection Instruments
  - 2.7.4. Data Analysis Process
  - 2.7.5. Establishment and Justification of the Validity and Reliability Criteria of the Investigation
  - 2.7.6. Design and Justification of the Plan for Communication and Dissemination of the Results
- 2.8. Designs of Interest for Public Health Information Collection Techniques
  - 2.8.1. Sampling
  - 2.8.2. Surveys Survey Design
  - 2.8.3. Validation of Questionnaires
- 2.9. Analysis and Interpretation of Results Digital Analysis of Qualitative Data
  - 2.9.1. Text Analysis Software
  - 2.9.2. Data Visualization Software
  - 2.9.3. QDA (Qualitative Data Analysis) Software
  - 2.9.4. Artificial Intelligence applied to Qualitative Studies
- 2.10. Evaluation, Rigor and Ethics in Qualitative Research in Public Health
  - 2.10.1. Ethical Principles of Research
  - 2.10.2. International Legislation and Regulations
  - 2.10.3. Health Care Ethics Committee



### Module 3. Health Promotion and Evaluation

- 3.1. Health Literacy and Development of Literacy Tools and Models
  - 3.1.1. Relationship between Literacy and Health Improving Health Outcomes of the Population
  - 3.1.2. Effective Communication Strategies Adapted to Different Cultural and Linguistic Contexts
  - 3.1.3. Evaluating the Effectiveness of Health Literacy Programs through the Application of Appropriate Evaluation Tools and Models
  - 3.1.4. Integrating Health Literacy into Public Health Policies and Programs
  - 3.1.5. Research and Development of New Technologies and Digital Tools to Improve Health Literacy and Health Promotion in Digital Environments
- 3.2. Salutogenesis, a Model of Health Assets
  - 3.2.1. Salutogenesis: Health Promotion Approach
  - 3.2.2. Health Asset Models
  - 3.2.3. Practical Applications of Health Asset Models in the Planning, Implementation and Evaluation of Health Promotion Interventions
  - 3.2.4. Evaluation of the Effectiveness and Relevance of Health Asset Models in Different Settings and Populations
  - 3.2.5. Design and Implementation of Strategies Based on Salutogenesis and Health Asset Models to Promote Health and Wellness in Different Settings and Communities
- 3.3. Community Intervention and Community-oriented Primary Care
  - 3.3.1. The Scope of Community Intervention and Primary Care: Promoters of Health and Wellness in the Population
  - 3.3.2. Implementation and Evaluation of Community Intervention Projects in Different Contexts and Populations: Principles of Equity, Participation and Sustainability
  - 3.3.3. Comprehensive Approach: Networking and Interdisciplinary Collaboration between Health Professionals, Social Services, Education and other Sectors
  - 3.3.4. Tools and Strategies for Health Promotion, Disease Prevention and the Promotion of Healthy Lifestyles in the Community
  - 3.3.5. Importance of Participation, Community Empowerment and Health Equity: Fundamental Principles for Improving the Quality of Life of the Population
  - 3.3.6. Identifying and Addressing the Social Determinants of Health and Health Inequalities: Equity and Justice in Access to Health and Welfare Services
  - 3.3.7. Critical Reflection on Health Policies and Programs in Community and Primary Care: Improvement and Adaptation to the Needs and Demands of the Population
- 3.4. Community Intervention Programs with an Ethical and Equitable Perspective
  - 3.4.1. Ethics in Public Health
  - 3.4.2. Principles of Equity in Community Intervention
  - 3.4.3. Interprofessionalism in Community Intervention: Creation of International Strategic Alliances
  - 3.4.4. Potential of Information and Communication Technologies (ICTs) and e-Health for the Promotion of Health
  - 3.4.5. Implementation of e-Health Strategies in Community Intervention Programs
- 3.5. Health Promotion and Protection at the Local Level from an International Approach
  - 3.5.1. Intersectoriality
  - 3.5.2. Social Map
  - 3.5.3. Social Actors of the Community from Different Sectorial Areas and the Administration
  - 3.5.4. Research Guidelines, Time, Universe, and Sample
  - 3.5.5. Universal, Replicable, Multi-center Collaborative Models
  - 3.5.6. Indicators of Assessment
  - 3.5.7. Research and Action of Replicable Collaborative Models
- 3.6. Research in Social and Community Participation
  - 3.6.1. Community and Social Participation
  - 3.6.2. Research and Action in Community and Social Participation
  - 3.6.3. Interdiscipline, Transdiscipline, Eco-Environmental, Sustainable and Sustainable
  - 3.6.4. Key Families and Strategic Groupings in the Community
  - 3.6.5. Fundamentals of Research and Action Appropriate to Each Place
  - 3.6.6. Quantitative and Qualitative Evaluation Measures
  - 3.6.7. Focus Groups
  - 3.6.8. Indicators and Utilization
  - 3.6.9. Strategic Indicators Appropriate to Each Site
  - 3.5.10. Health Team Involved in Research and Action
  - 3.5.11. The Scope of the Action Research
  - 3.5.12. Evaluation of the Sample

- 3.7. Methods of Idea Generation and Design of Health Promotion/Health Education (HPE) Campaigns
  - 3.7.1. Methods of Generating Ideas for the Design of Health Promotion, Health Education and Disease Prevention Campaigns
  - 3.7.2. Analysis of the Specific Needs and Characteristics of the Target Audience in Order to Adapt Communication and Promotion Strategies to their Needs and Preferences
  - 3.7.3. Creative Tools and Techniques to Generate Innovative and Effective Ideas in the Design of Health Promotion Campaigns
  - 3.7.4. Educational Messages and Materials: Clear, Informative and Persuasive
  - 3.7.5. Evaluating the Effectiveness of Health Promotion Campaigns: Adjustments to Improve Results
- 3.8. Complex Models and Methods in Health Education
  - 3.8.1. Theory of Change: Determinants of Human Behavior and Strategies to Change them towards Healthier Behaviors
  - 3.8.2. Social Determinants of Health Approach: Sociopolitical, Economic and Cultural Factors in Influencing the Health of Populations Addressing Inequities
  - 3.8.3. Community Empowerment Models: Strengthening Communities to Make Healthy Decisions and Achieve Positive Changes in their Environment
  - 3.8.4. Theories of Health Behavior: Beliefs, Attitudes and Motivations of People
  - 3.8.5. Participatory Methods in Health Education: Involving People and Communities in the Design, Implementation and Evaluation of Health Programs Collaboration and Autonomy
- 3.9. Elaboration, Development and Design of Programs in Health Education
  - 3.9.1. Design and Development of Health Education Programs: Identification of Needs, Formulation of Objectives, Selection of Methods and Intervention Strategies and Planning of Activities
  - 3.9.2. Implementation Strategies: Accessibility, Equity and Sustainability of Health Programs
  - 3.9.3. Partnerships and Collaborations with Relevant Institutions and Organizations to Strengthen Health Program Implementation
  - 3.9.4. Continuous and Systematic Evaluation of Health Program Implementation: Identification of Challenges, Necessary Adjustments, and Opportunities for Improvement
  - 3.9.5. Active Participation of the Community in the Implementation of Health Programs: Fostering Community Ownership and Sustainability of the Actions Carried Out
  - 3.9.6. Ethical Principles that Govern the Implementation of Health Education Programs: Ethics and Responsibility towards the Communities and Beneficiary Populations
- 3.10. Research and Evaluation of the Impact of Collaborative and Educational Models
  - 3.10.1. Health Research: Protocol Development, Data Collection and Analysis, and Scientific Report Writing
  - 3.10.2. Evaluation of the Impact of Educational Programs on the Health of the Population, use of Qualitative and Quantitative Evaluation Tools
  - 3.10.3. Importance of Interdisciplinarity in the Design and Evaluation of Health Education Projects Collaboration Among Professionals as an Enhancer of Results
  - 3.10.4. Effective Communication of Research and Evaluation Results to Health Professionals and the General Community



*You will update your knowledge in Public Health Epidemiology for Nursing through innovative multimedia content. Enroll now!"*

# 05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.



“

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

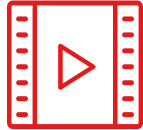
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

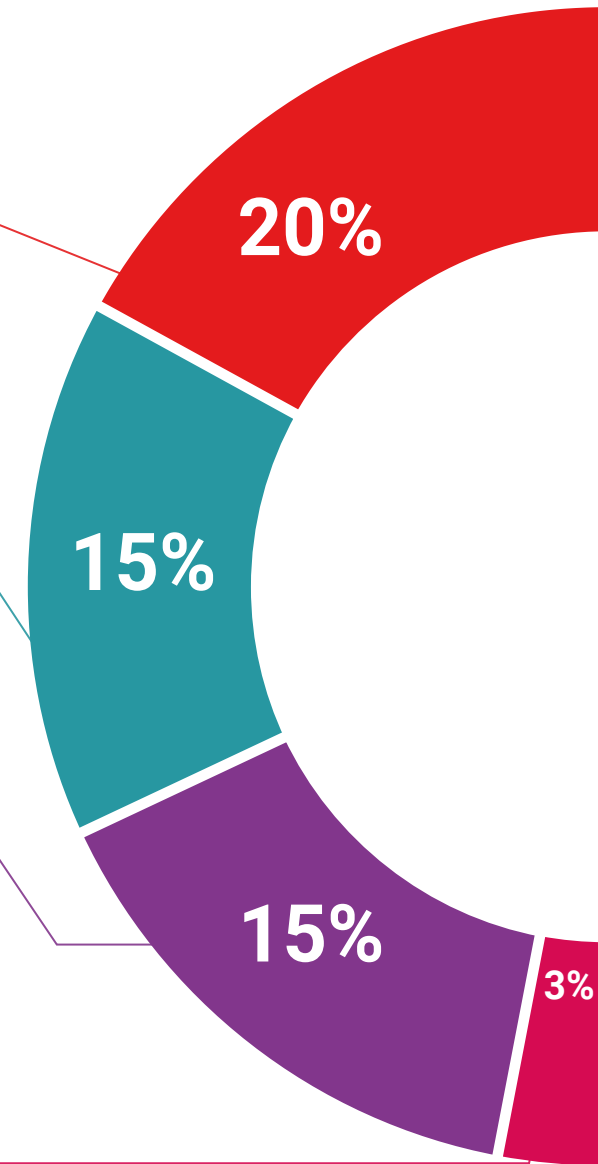
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

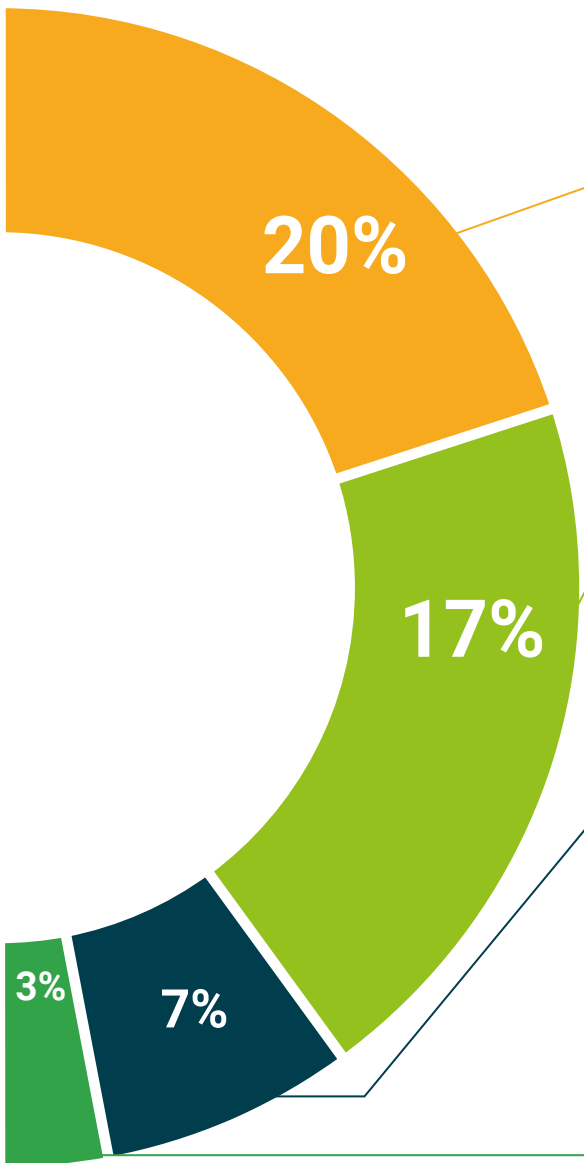


### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.





06

# Certificate

The Postgraduate Diploma in Public Health Epidemiology for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.





*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This private qualification will allow you to obtain a **Postgraduate Diploma in Public Health Epidemiology for Nursing** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

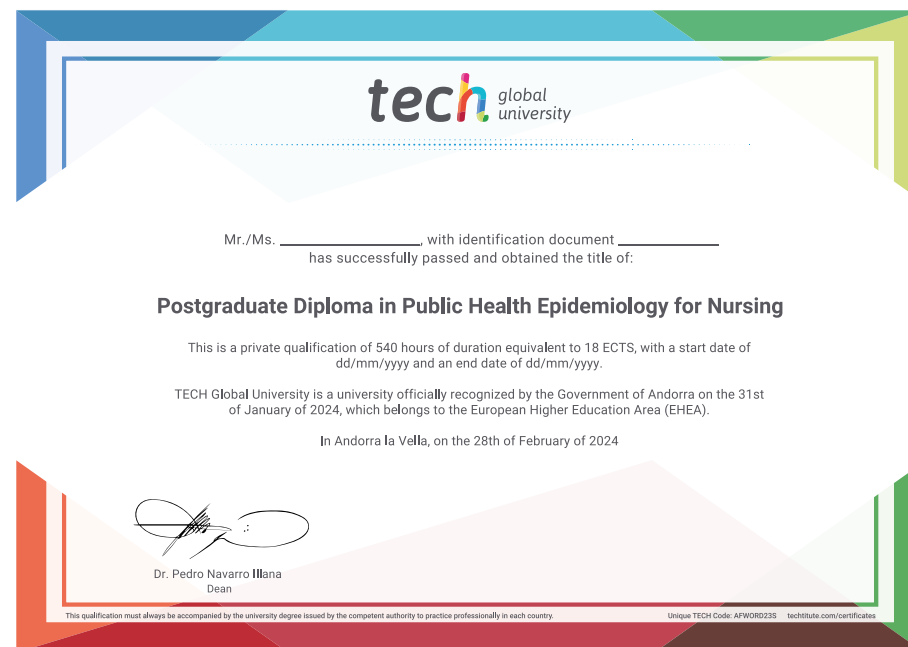
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Public Health Epidemiology for Nursing**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



**Postgraduate Diploma**  
Public Health Epidemiology  
for Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Public Health Epidemiology for Nursing

