

## THE SECTION OF HYGIENE

Department of Life Sciences and Public Health Università Cattolica del Sacro Cuore (UCSC)

# COORDINATION



#### STEFANIA BOCCIA

Director of the Section of Hygiene UCSC. Full professor of Hygiene and Preventive Medicine UCSC. Deputy Research Director of the IRCCS Fondazione Policlinico Agostino Gemelli. Affiliate of the Meta-Research Innovation Center at Stanford University. President of the Public Health Epidemiology Section of the European Public Health Association (EUPHA). Italian Member of the Subgroup of health Promotion and Prevention on Cancer of the European Commission



#### WALTER RICCIARDI

Full professor of Hygiene and Director of the School of Hygiene and Preventive Medicine, Università Cattolica del Sacro Cuore. Chair of the European Mission Board for Cancer, and the European Mission Board for vaccination. Chair of the Advisory Board of the World Federation of Public Health Associations. Coordinator of the Scientific Advisory Board of the Human Technopole Foundation. Vice President of the Board of Directors of the Italian Institute for Planetary Health

## SOME NUMBERS

Full Professors Stefania Boccia, Walter Ricciardi

Associate Professors
Gianfranco Damiani, Patrizia Laurenti,
Maria Lucia Specchia

Assistant Professors
Stefania Bruno, Giovanna Elisa Calabrò, Fidelia Cascini, Antonello Cocchieri, Roberta Pastorino, Angelo Maria Pezzullo, Gianluigi Quaranta, Leonardo Villani

5 Post Doc

77 PhD Candidates in Public Health

73 Resident Physicians in Hygiene and Preventive Medicine

Technical Administrative Staff

2 Lab Technicians



The Section of Hygiene of the Department of Life Sciences and Public Health at Università Cattolica del Sacro Cuore is a vibrant environment where high educational standards converge with a strong innovative spirit. We dedicate our efforts to providing training across key areas of public health, and we give our contributions in numerous international projects aimed at enhancing the well-being of the population from diverse perspectives. Our activities strives to support research on health systems and contribute to shaping the innovation in public health.

# OUR RESEARCH

#### **Public Health Genomics**

and Personalized Prevention

The Public Health Genomics and Personalized Prevention group merges traditional public health elements grounded in population-based approaches with tools and strategies aimed at tailoring preventive, diagnostic, and therapeutic interventions. Our focus within this group is on exploring the potential of designing preventive interventions using data derived from omics technologies. We dig into the current state of knowledge regarding these insights, examining their integration potential within healthcare systems.

#### Vaccines and Communicable Diseases (CDs) Prevention Policies

The Vaccines and Vaccination Policy working group is dedicated to supporting the systematic gathering and production of the latest evidence in the field of vaccines. Our efforts are aimed at generating reports that assist regulatory agencies and institutional bodies in formulating national and international strategies on vaccination policies. Additionally, we actively engage in monitoring existing initiatives to ensure their effectiveness. Furthermore, VIHTALI currently collaborates with the Immunization Task Force of the World Federation of Public Health Association for the development of international projects on infectious diseases and vaccine prevention and related health policies to be implemented globally, with particular reference to the European context.

## Methods of Public Health

**Epidemiology and Meta-Research** The Methods of Public Health Epidemiology and Meta-Research working group focuses on the study and refinement of quantitative research methodologies applied to epidemiology and public health. In particular, the group investigates the field of metaresearch, an innovative area aimed at studying how research is conducted and interpreted to achieve a rigorous understanding of what makes it reliable and how it can be strengthened.

#### Value-Based Health Care (VBHC)

The VBHC group, coordinated by VIHTALI, develops action research projects, at national and international level, by applying the VBHC framework promoted in 2019 by the Expert Panel on Effective Ways of Investing in Health (EXPH) of the European Commission, which proposes the "quadruple value" model (personal, technical, allocative and social value). These activities have the aim, starting from available health data, to produce new scientific evidence on the application of the VBHC principles to all healthcare sectors (prevention, diagnosis and treatment) and to all the population health needs in order to promote and implement an equitable, accessible, and value-based healthcare system.

#### Cancer Epidemiology and Prevention

The Cancer Epidemiology and Prevention working group is dedicated to exploring the epidemiological trends of various types of neoplasms in Europe. We actively investigate the potential role of preventive interventions in shaping the incidence and clinical course of different cancers. The collection of robust evidence in this field is a cornerstone for the development of effective actions.

## Health Policy

The Health Policy working group is dedicated to providing support to decision-makers and stakeholders through the development of methodologies aimed at assessing the impact of both healthcare and non-healthcare policies on population health. We advocate for the analysis of priorities to guide the development of new

interventions and actively generate recommendations to steer research and implementation of innovative strategies within the field of public health.

#### Health Service Research

The Health Service Research group is dedicated to studying healthcare systems as complex adaptive systems. In this regard, the working group investigates the relationships among various elements that constitute a healthcare system, focusing on both hospital and primary care contexts.

#### Health Technology Assessment (HTA)

The Health Technology Assessment (HTA) group focuses on developing HTA reports on drugs, vaccines and medical devices. These activities are conducted by the Università Cattolica's spin-off VIHTALI (Value in Health Technology and Academy for Leadership and Innovation). The methodology used by the VIHTALI team is based on a multidisciplinary, multiprofessional and multisectoral approach updated to the best international evidence in the sector, guaranteeing a careful and in-depth examination of the medical, safety, clinical effectiveness, economic, organisational, ethical, social and legal implications of the use and dissemination of a health technology. The aim is to support decision-makers in identifying patient-centered and best-value health policies, in order to promote an equitable, efficient, and highquality health system.

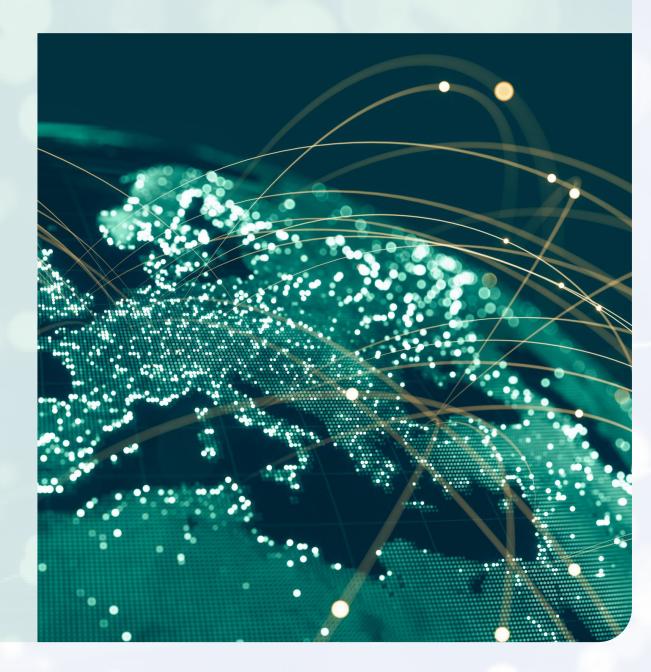
### Digital Health

The Digital Health group is dedicated to researching the latest applications of technological innovation in the field of healthcare. In an era where Artificial Intelligence is making a disruptive entry into the daily lives of all healthcare professionals, it is essential to learn to navigate this change effectively in order to integrate it seamlessly.

#### Infection and Antimicrobial

**Resistance Control** 

The Hygiene section participates in infection control and antibiotic resistance control initiatives, supporting activities related to the Joint Commission International Accreditation Process and the National Observatory on Antibiotic Resistance



# CURRENT EU FUNDED PROJECTS

## **Horizon Europe Framework Programme**

**PROPHET:** a Personalized Prevention Roadmap for the future Healthcare.

**QUANTUM:** Quality, Utility and Maturity measured.

**THCS:** Enabling health and care systems transformation through research and innovation.

**CCI4EU:** Comprehensive Cancer Infrastructure for the European Union.

**ECHOS:** Establishing of Cancer Mission Hubs: Networks and Synergies.

**SustainHTA:** Support Utilisation of Sustainable and TAilored INnovative methods for HTA.

## **EU4 Health Programme**

EU4health Civil Society Alliance

**HORIZON EUROPE** 

CAN.HEAL: Building the EU Cancer and Health Genomics Platform.

**4PCAN:** Personalized CANcer PrimaryPrevention research through Citizen Participation and digitally enabled social innovation.

VH-COMSAVAC: Viral Hepatitis COMmunity Screening, Vaccination, and Care.

**Vax-ACTION:** tackling effectively vaccine hesitancy in Europe.

**PERCH:** Partnership to contrast HPV.

JAPReventNCD: Joint Action on Cancer and other NCDs prevention.

JAXt-EHR: Joint Action Extended EHR@EU Data Space for Primary Us.

**JATEHDAS 2:** Towards European Health Data Space 2

## **Horizon 2020 Framework Programme**

**ExACT:** European network staff eXchange for integrAting precision health in the health Care sysTems.

**DE-PASS:** Determinants of Physical ActivitieS in Settings.





HORIZ N 2020





**Vaccines and Communicable Diseases (CDs) Prevention Policies** 





## **Digital Health**



























**Public Health Genomics and Personalized Prevention** 







**Health Service Research** 





