Paolo Berta

10 dicembre 2024

Curriculum Vitae

Address: Department of Statistics and Quantitative

Methods**, University of Milan-Bicocca, Italy

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Native proficiency: Italian

Fluent level: English and French

Current Academic Position

November 2022 **Associate Professor** of Social Statistics in the 13-D3 area at the Department of Statistics and Quantitative Methods, University of Milan-Bicocca (Italy).

November 2023 Vice-Coordinator of the PhD Program in Public Health, Epidemiology, Statistics,

and Economics at the University of Milan-Bicocca (Italy).

Other Academic Roles at the University of Milan-Bicocca

From July 2024 Member of the Scientific Council of the Bicocca Research Centre in Health Services (BReCHS) - the main objectives of the Centre involve enhancing and in-

vices (BReCHS) - the main objectives of the Centre involve enhancing and integrating the state of knowledge in various aspects of health services research, with particular focus on the organization of health services, the utilization of health services, the consumption of healthcare resources, economic evaluation and efficiency analysis of healthcare services, as well as economic evaluation and effectiveness analysis of healthcare technologies. The Centre has been established for a duration of six years and involves the Departments of Medicine and Surgery, Statistics and Quantitative Methods, Economics, Quantitative Methods and Business Strategies, and Computer Science, Systems, and Communication.

From April 2024 Member of the Scientific Council of the Interuniversity Research Center for Public

Utility Services (CRISP), University of Milan - Bicocca – Active since 1997, the Center is supported by six Italian universities (Bicocca, Milan State, Milan Catholic University of the Sacred Heart, Brescia, Bologna, Udine), involving more than 40 researchers and professors. The objective of CRISP is to study and support policymakers and decision-makers in analyzing socio-economic phenomena through the use of statistical, administrative, and web data analysis. CRISP has extensive experience in studying the dynamics of the healthcare sector, with a particular focus on efficiency and effectiveness evaluation, as well as healthcare accreditation models. Recent studies have also focused on the governance of decision support

systems and their organizational impacts.

From May 2024 Member of the Technical Scientific Committee, appointed by the Rector, for the

evaluation of technical and scientific reports related to project activities under the

2022 PRIN PNRR call.

July 2024 Member of the Third Mission VQR Referents Committee at the University of

Milan-Bicocca.

From 2023 Coordinator of the teaching plan for the PhD Program in Public Health,

Epidemiology, Statistics, and Economics.

From 2019 Internship Coordinator for the Bachelor's Degree Program in Statistics and

Information Management.

2022-2023 Member of the Academic Board of the PhD Program in "Economics, Statistics, and

Data Science."

Previous Academic Roles

Novembre 2023
Member of the Academic Board for the PhD Program in Public Health, Epidemiology, Statistics, and Economics.

Novembre 2022 – Ottobre 2023
Member of the Academic Board for the PhD Program in Economics, Statistics, and Data Science.

Novembre 2019 – Ottobre 2022
Tenure-Track Researcher in Social Statistics (13-D3 area) at the Department of Statistics and Quantitative Methods, University of Milan-Bicocca (Italy).

Giugno 2014 – Maggio 2019
Type A Researcher in Statistics (13-D1 area) at the Department of Statistics and Quantitative Methods, University of Milan-Bicocca (Italy).

Education

2018 PhD in Statistics from Brunel University London, UK Thesis: "Statistics Evaluation of Quality in Healthcare"

- 2003 Master in Statistics for Healthcare from the University of Milan-Bicocca, Italy Thesis: "Using Data Mining for the Analysis of Pharmaceutical Expenditure"
- 2002 Internship at the Local Health Authority (ASL) of Brescia

 The internship focused on analyzing pharmaceutical prescriptions to identify profiles of physicians prone to overprescribing drugs, contributing to inappropriate healthcare spending.
- 1999 Bachelor's Degree in Demographic and Social Statistics from the University of Padua, Italy Thesis: "From the Republic of Venice to the Kingdom of Italy: Quality of Demographic Statistics in Veneto."

National Scientific Qualification

Giugno 2023 National Scientific Qualification for the role of Full Professor in the Academic Recruitment Field 13/A3 - Public Finance.

Luglio 2018 National Scientific Qualification for the role of Associate Professor in the Academic Recruitment Field 13/A3 - Public Finance.

Luglio 2018 National Scientific Qualification for the role of Associate Professor in the Academic Recruitment Field 13/D3 - Demography and Social Statistics.

Bibliometric Profile as of December 4, 2024

Scopus Id Scopus: 57190579633 - H-Index: 10 - Documenti: 28 Web of Science Id WoS: HGA-5830-2022 - H-Index: 9 - Documenti: 29

ORCID Id: 0000-0003-0984-4288

Main Research Activities

My main research activities focus on health economics and the use and development of appropriate and modern statistical and econometric methods tailored to research objectives. An essential feature of my research involves the use of administrative data at regional and national levels, enabling me to leverage population-level information and overcome the limitations of survey data.

My research has been carried out through projects based on competitive grants, institutional assignments, and independently initiated ideas, with regional, national, and international significance. These projects, characterized by a multidisciplinary approach, have addressed complex issues by integrating diverse perspectives and expertise. In particular, my research has played a crucial role in understanding how healthcare systems function and in proposing solutions for their improvement, contributing to the optimization of care quality, efficiency, and equity in access to services.

The Quality of Healthcare Systems

A significant part of my scientific career has been dedicated to evaluating the quality of healthcare systems. Through a multidisciplinary approach that combines expertise in health economics, statistics, and public policy management, I have conducted in-depth analyses of the functioning and effectiveness of healthcare services, with a particular focus on patient outcomes and resource efficiency.

My work has focused on key topics such as measuring hospital performance, analyzing factors influencing the quality of care, and assessing the impact of healthcare policies on the population. Among the most notable contributions are studies leveraging administrative data to develop innovative evaluation models capable of identifying inequalities in access to care and opportunities for improvement in clinical processes.

Through rigorous analysis and the use of advanced methodologies, my research has provided valuable tools for improving healthcare management, significantly contributing to understanding how healthcare systems can be optimized to ensure high standards of quality and accessibility. Research in this area has had an impact not only academically but also practically, influencing the debate on healthcare policies.

In this context, my work includes studies on the mechanisms of distortion in the DRG payment system and the development of a healthcare system evaluation model based on mixed-effects models. .

Competition and Cooperation in Healthcare

A significant aspect of my research focuses on competition in the healthcare sector, which is at the center of a heated debate, particularly in contexts where reforms aim to improve service quality through competition among hospitals. My research explores the relationship between hospital competition, information asymmetry, and the quality of care.

The findings reveal that, despite the theoretical assumption that increased competition should lead to improved quality, this hypothesis is not always confirmed. A key explanation proposed is the presence of information asymmetry, which limits patients' ability to choose hospitals based on quality criteria. Instead, patients often rely on geographic proximity or informal information, which reduces incentives for hospitals to significantly enhance quality to attract more patients.

In addition to competition, I have also focused on another crucial economic aspect for public services: cooperation. Cooperation in public services, such as healthcare, is a central issue, particularly because of its potential to influence efficiency, quality, and equity in service delivery. In sectors like healthcare, where resources are limited and the needs of the population are diverse and constantly evolving, collaboration among facilities is seen as a means to optimize resource use, improve access to services, and better address patient needs.

My research has shown that hospital cooperation, when well-structured and supported by clear protocols, can significantly enhance the overall quality of the healthcare system. This approach is a key element in addressing territorial inequalities and ensuring a more efficient system and more effective care for patients.

Patient Mobility in Healthcare

Patient mobility is a complex and multidimensional phenomenon that occurs when patients move from one healthcare facility to another, often in a different geographical context, to receive medical care. This issue is particularly relevant in healthcare systems, especially in public systems like the Italian one, where access to care and resource distribution can vary significantly between regions. My research has focused on both the determinants driving patient mobility and the strategies employed by hospitals to attract out-of-region patients.

On one hand, the strategies adopted by hospitals to attract out-of-region patients include reducing waiting times and extending hospital stays for patients traveling longer distances. Interestingly, these strategies do not appear to disadvantage local patients. On the contrary, in many cases, hospitals that attract a higher number of out-of-region patients also show improvements in quality indicators for residents, such as lower mortality rates.

Healthcare mobility involves significant financial flows, with resource transfers from less affluent regions, which "export" patients, to wealthier regions, which "import" them. While economically bene-

ficial for regions attracting patients, this model exacerbates the North-South divide in the healthcare system.

My research emphasizes the need for more careful regulation of healthcare mobility to reduce territorial inequalities.

Regarding patients, I have studied interregional patient flows in Italy, introducing the concept of the "beaten paths effect". This term refers to the tendency of patients to choose regions where social or familial ties, stemming from past migrations, facilitate access to care and reduce the emotional and logistical costs of mobility.

This provides an innovative analysis of the role of social networks in healthcare mobility and highlights the need to address regional disparities to ensure an equitable and efficient healthcare system.

In summary, my research demonstrates that healthcare mobility is not a phenomenon that can be eliminated. However, if well managed, it can enhance the overall quality of care. This requires targeted policies to ensure that the benefits are equitably distributed among regions and between resident and non-resident patients.

Evaluation of Healthcare Policies

An essential part of my research focuses on the evaluation of healthcare policies, a crucial process for analyzing the effectiveness, efficiency, and equity of public interventions aimed at improving healthcare services.

One example of this research concerns the analysis of the impact of a healthcare policy introduced in Lombardy in 2008 to combat the phenomenon of upcoding, a practice where hospitals classify patients under diagnostic categories with complications not actually present to obtain higher reimbursements. The regulatory intervention established a minimum length of stay (LOS) required to qualify for higher reimbursements for patients classified with complications.

Using a difference-in-difference approach, I was able to identify the effects of this policy on discharges with and without complications and the reimbursements received by hospitals. The results revealed that, after the law's introduction, the probability of discharges coded as "with complications" decreased by 3%. Hospitals responded strategically to the new regulation by increasing the average LOS for patients with complications by 0.17 days. Economically, the system benefited from this policy, as the average reimbursement for discharges with complications decreased by 8.5%, leading to significant cost savings for the regional healthcare system. The impact was more pronounced in private and non-profit hospitals, which were more affected by the regulation compared to public hospitals, highlighting differences in strategic patient management.

Another policy evaluation analyzed the impact of the Pay-for-Performance (P4P) program introduced in 2012 in Lombardy to improve healthcare quality through financial incentives tied to hospitals achieving specific quality benchmarks. The program was applied to nine specific hospital units (including cardiology, oncology, neurosurgery, and general medicine), selected to represent a broad range of clinical conditions. Hospitals received budget increases or reductions based on their performance, measured through five outcome indicators.

Using a causal inference approach, the study showed that the P4P program positively impacted hospital management indicators, fostering internal reorganization that improved the quality of care in Lombardy. These results provide a foundation for further studies on the program's long-term effects and economic implications.

In the context of impact evaluations, a recent study analyzed how differences between healthcare systems influenced the management of the Covid-19 pandemic. This work highlighted the importance of systemic and policy-driven factors in addressing health crises and their broader implications for healthcare system resilience.

Fiscal policies

Recently, I have focused on taxation, with research examining how tax audits influence taxpayer behavior and how advanced machine learning models can be used to analyze and improve these dynamics. Focusing on the rational behavior of taxpayers, the research aims to understand whether individuals are more likely to comply with tax regulations when they know they are subject to audits. The novel-

ty of this research lies in the application of machine learning algorithms to deepen the analysis of this well-established effect in economic literature.

The research objectives go beyond merely predicting non-compliance risk, providing actionable insights to optimize audit strategies. For instance, the study highlights that the current number of tax audits conducted in Italy is significantly lower than the optimal level. According to the results, increasing the number of audits would improve taxpayer compliance without incurring excessive costs.

In essence, this research introduces a new way of addressing the issue of fiscal compliance by combining traditional economic insights with modern tools. This approach not only enhances the understanding of taxpayer behavior but also offers practical guidance on how to make tax policies more effective and targeted. It serves as a concrete example of how technology can support the development of policy strategies in complex areas such as taxation.

Affiliation to Scientific Societies and Academies of Recognized Prestige

- 2023 AIES Italian Health Economics Association (Associazione Italiana Economia Sanitaria)
- 2019 Management and Healthcare Laboratory, Scuola Superiore Sant'Anna, Pisa
- 2018 HEDG Health Econometrics and Data Group, Department of Economics and Related Studies, University of York

Teaching Activities

- Since 2022 Course Coordinator for "Statistical Evaluation of Health Systems" in the Master's Degree Program in Biostatistics, University of Milan Bicocca
- Since 2018 Course Coordinator for "Statistics II Inference" in the Bachelor's Degree Program in Statistics and Information Management, University of Milan Bicocca
- Since 2023 Module Coordinator for "Statistical Evaluation of Health Services and Systems" in the PhD Program in Public Health, Epidemiology, Statistics, and Economics, University of Milan Bicocca

Other Teaching Activities at Bicocca

2015-2024	Lecturer for the "Statistics and Data Mining" module in the Master's Program in
	Business Intelligence, University of Milan – Bicocca
2013-2018	Course Coordinator for "Statistical Evaluation of Health Systems" in the Master's
	Degree Program in Biostatistics, University of Milan – Bicocca
2018-2019	Teaching Assistant for the course "Data Analysis" in the Bachelor's Degree Program in
	Statistics and Information Management, University of Milan – Bicocca
2016-2018	Teaching Assistant for the course "Generalized Linear Models" in the Bachelor's Degree
	Program in Statistics and Information Management, University of Milan – Bicocca
2014-2015	·
	Statistics and Information Management, University of Milan – Bicocca
2015-2016	Teaching Assistant for the course "Statistical Models for Latent Variables" in the Bache-
	lor's Degree Program in Statistics and Information Management, University of Milan –
	Bicocca
2016-2018	Lecturer in the PhD Program in Statistics and Mathematical Finance, University of
	Milan – Bicocca: Multilevel Models, Finite Mixture Models, and Cluster Weighted
	Models
2015-2023	Lecturer for the "Statistics and Data Mining" module in the Master's Program in
	Business Intelligence, University of Milan – Bicocca
2014-2015	Lecturer in the PhD Program in Statistics and Mathematics, University of Milan – Bi-
	cocca: Applications of Generalized Linear Models, Tobit and Heckman Models, and
	Structural Equation Models
2012-2014	Lecture on "Quality Evaluation in Healthcare" in the Master's Program in Business
	Intelligence, University of Milan – Bicocca
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Selection of Other Teaching Activities

2019	Invited lecture titled "Lean in Healthcare Services" at the MBA Program of Brunel	
	University London (UK) (12 hours)	
2018-2020	Lecture on quality evaluation in healthcare at the Master in Healthcare Management,	
	University of Bergamo (8 hours annually)	
2015-2018	Lecture on quality evaluation in healthcare in the course for Complex Healthcare	
	Structure Managers, Scuola Superiore Sant'Anna, Pisa (8 hours annually)	
2014-2020	STATA Lab at the Summer School in Applied Health Econometrics and Health Policy	
2010	Lectures on quality evaluation models in healthcare for the Statistical Data Analysis	
	Course at Almo Collegio Borromeo, Pavia (12 hours)	

Member of Scientific Committees

2020	Member of the ISTAT Scientific Committee for the study and analysis of the spread of	
	Covid-19	
2013-2014	Member of the PNE (National Outcome Program) Working Group at the National	
	Agency for Regional Health Services (AGENAS)	
2010	Member of the Ethics Committee of the Mantua Hospital	
2009	Member of the Scientific Committee for the establishment of a Regional Observatory on	
	Addictions at the Regional Research Institute (IRER) of Lombardy Region	

Leadership or Participation in Research Groups with National or International Collaborations

- 2023-2026 Task Leader in the PNRR extended partnership project "Age-it: Ageing Well in an Ageing Society." Age-It brings together interdisciplinary expertise across fields such as demography, geriatrics, gerontology, neurology, cardiology, immunology, data science, education, epidemiology, biology, genetics, engineering, sociology, law, political science, and economics. It involves universities, research centers, private companies, public institutions, and civil society. The task I am responsible for, titled "Impact evaluation of discharge planning on the continuity of care, patient's outcomes, and hospital quality" within the work package "Investigating the gap between the needs of the ageing population and the institutional responses: what impact on the healthcare systems and elderly wellbeing?" coordinated by Prof. Aleksandra Torbica (Bocconi University), analyzes the economic and social impact of hospital discharges for patients over 65 in terms of effectiveness, efficiency, and appropriateness. (https://ageit.eu)
- 2023-2025 Participant in the PRIN project "MIGrants' HealTh and healthcare access in ItalY (MIGHTY)." The project aims to produce new and updated knowledge on migrants' health, unmet needs, and access to healthcare services, providing policymakers with a comprehensive tool for consulting data on these topics and visualizing critical indicators to support decisions and policies. The project is developed in collaboration with the Polytechnic University of Marche.
- 2022-2023 Participant in the research project "Permanent damages from SARS-CoV-2 infection," conducted by a research group formed by the University of Milan-Bicocca, the University of Perugia, Sacco Hospital in Milan, and Terni Hospital. The study was funded through a call promoted by the Cassa di Risparmio di Perugia.
- 2020-2022 Participant in the international project "EUCOVID-19 A multinational registry-based linkage study with focus on risk and protective factors, clinical outcomes, and mental health," proposed by the University of Oslo. My research focused on hospital organization during epidemic phases, specifically analyzing the allocative efficiency of hospital beds. The project was funded by the "Collaborative and Knowledge-building Projects for the Fight Against Coronavirus Disease (COVID-19)" call from the Research Council of Norway.
- Participant in the European project AI4ESCO A Data-Driven Bridge Towards ESCO Using AI Algorithms. Funded under the EaSI EURES call, the project aims to create the first and only official mapping between the Italian official taxonomy of professions (ISTAT CP2011) and ESCO (The European Classification of Occupation and Competences) using AI algorithms.

- Apr 2020 Oct 2020 Coordinator of the project funded by the European Regional Development Fund 2014-2020 Lombardy Region, "Early detection and SARS-CoV-2 containment. Tools and services to address the challenge at Covid19." The project provided support to policymakers on the spread of the virus in its various forms through predictive models, under the supervision of Bicocca University in partnership with statistics faculty from the University of Perugia and external contributions from econometrics experts at the Joint Research Center of the European Commission.
- 2019-2024 Participant in the project funded by the Ministry of Health 2016 Finalized Research Call Network Program "NET-2016-02363853 Performance evaluation and value assessment for cardiovascular and oncological care paths in a regional network context: challenges and opportunities." The project aims to develop a multidimensional performance evaluation system, supported by transparent audits, to reduce inefficiencies, promote the adoption of clinical guidelines, and continuously improve healthcare practices. It focuses specifically on complex conditions such as oncology, neurology, and cardiovascular diseases. The system is continuously monitored to ensure that improvements translate quickly into tangible benefits for patients, enhancing efficiency, effectiveness, and equity in healthcare services.
- Winner of the "Visitinps Scholars Program Type A" call as principal collaborator. Project title: "Job insecurity, unemployment, use of health services and mental health condition." Principal Investigator: Prof. Massimiliano Bratti (University of Milan).
- 2015-2017 Participant in research activities within the scientific collaboration between the Institute of Management Healthcare Management Laboratory Scuola Superiore Sant'Anna, Pisa, and the University of Milan Bicocca CRISP Research Center, analyzing the efficiency and effectiveness of regional healthcare systems and the providers composing these systems.
- Coordinator of the project "Provision of research and study services to support the reorganization process of the Regional Health Service," funded through a competitive call by Eupolis Lombardia Institute for Research, Statistics, and Training. The project aimed to analyze the potential reorganization of the hospital and emergency systems and assess new co-payment models to ensure continuous improvement in the quality of the Regional Health System, focusing on efficiency, effectiveness, cost containment, and equity in services.
- 2010-2011 Participant in the "Regional Observatory on Addictions OReD" project for the Regional Directorate for Family and Social Solidarity, Lombardy Region.
- Participant in the project "Evaluation of activities and decisions in healthcare systems" for the National Agency for Regional Health Services (AGENAS).
- 2005-2006 Participant in the project "Families Facing Autism" for the Regional Directorate for Family and Social Solidarity, Lombardy Region.

Responsibility for Studies and Scientific Research Commissioned by Qualified Public or Private Institutions

- 2023-2025 Scientific Coordinator of the Bicocca Unit for the PRIN project "RETIN: Responses to Inequalities in Non-communicable diseases: measurement and management challenges through an interregional perspective". The project aims to develop and implement a uniform model for identifying chronic diseases in the resident population to measure prevalence, treatment patterns, healthcare resource utilization, costs, and outcomes related to chronic conditions and their socio-economic determinants. The study focuses on the populations of three Italian regions—Tuscany, Lombardy, and Sicily—representing approximately 30% of Italy's total population. The project addresses a key social challenge of the 21st century due to the relevance and projected trends of chronic diseases in Western populations and their impact on healthcare system sustainability. Developed in collaboration with Scuola Superiore Sant'Anna (Pisa) and the University of Palermo.
- 2023-2024 Scientific Coordinator for Bicocca of the project "Forecasting the Teaching Workforce in Italy", commissioned through a competitive call by the European Commission's DG REFORM to Ernst & Young. The project supports the Ministry of Education and Merit in planning and organizing teacher recruitment by building a forecasting model based on ministerial and external data sources (ISTAT, EUROSTAT, etc.) to estimate the teacher workforce needs for primary, lower secondary, and upper secondary schools.
- 2023-2024 Scientific Coordinator of the project "Subsidiarity and the Role of the Third Sector as a Partner of Public Administration. Case Studies on Co-programming, Co-design, and Co-accreditation in Lombardy". The project examines the impact of a subsidiary approach on public administration, including its social and economic effects.
- 2024-2026 Scientific Coordinator of the collaboration agreement with the Joint Research Center of the European Commission and other research institutions for the counterfactual impact evaluation of public policies. The agreement, signed between the European Commission's Joint Research Center and the Department of Statistics and Quantitative Methods of the University of Milan-Bicocca, aims to enhance the understanding and application of Counterfactual Impact Evaluation (CIE) to assess policy effectiveness. Key goals include strengthening coordination and cooperation, promoting shared research, and deepening scientific, economic, and social knowledge related to CIE.
- Scientific Coordinator of the project "Manifesto Policy Recommendations to Revitalize Anti-Smoking Efforts in Italy" funded by the Foundation for Subsidiarity. The project aims to develop policy recommendations based on current evidence to promote a new approach to anti-smoking strategies focused on prevention economics and harm reduction rather than prohibition policies.
- Participant in the impact evaluation project for ARIA-Regione Lombardia "Impact of the CREG on the Lombardy Healthcare System."

Scientific Collaborations and Consultancies

2020-2023	Research collaboration with the Foundation for Subsidiarity: "Hospital-acquired
2020-2023	infections and the hospital hygiene market."
2016	Research collaboration with the Foundation for Subsidiarity: "ONBSI Observatory:
	Market and Regulations for Public Tenders in the Cleaning and Integrated Multiservice
	Sectors."
2013-2014	Data analysis of hospital databases for internal evaluation of hospitalization and
	treatment activities at the Cremona Hospital Trust.
2010-2014	Consultancy activities for the research and experimentation of methods and models to
	evaluate the effectiveness and efficiency of territorial intervention structures (SeRT) for
	the Department of Addictions of the Sondrio Health Authority (ASL).
2010-2014	Identification of efficiency and effectiveness reference indicators for the Lombardy
	Region and systematization of their application to DWH databases for Lombardia
	Informatica SPA.
2004–2014	Consultancy activities within the CRISP project for the Lombardy Region, focused on
	hospital quality analysis. Activities included coordinating between CRISP and the Ge-
	neral Directorate of Health of the Lombardy Region and data collection and analysis
	using multilevel models to study the effectiveness of healthcare facilities in Lombardy.
	This work produced the first evaluation system for Lombardy's healthcare sector, which
	was officially implemented in March 2012 through a regional regulation. The regulation
	stipulated that results obtained through these evaluations would be used to adjust the

Organization of Scientific Events

Since 2008, as part of activities conducted with the CRISP Research Center and the University of Milan-Bicocca, in collaboration with national and international partners, I have promoted a series of biennial workshops on health economics and econometrics. In 2012, a summer school was launched, focusing on Spatial Econometrics in its first edition. Since 2014, with the participation of leading international experts, this event has evolved into a Summer School titled "Applied Health Econometrics and Health Policy." It is one of the few European initiatives providing young researchers, academics, and professionals with training on health economics and econometrics, deeply analyzing the relationship between healthcare research and health policy.

budgets of accredited public and private hospital facilities.

September 2024	Member of the Scientific Committee of the XXIX AIES National Conference,
July 2024	Naples Organizer and Member of the Scientific Committee of the 8th Empirical Health Economics Workshop, Pisa
July 2024	Organizer of the Spatial Health Econometrics Course, Pisa
July 2022	Organizer and Member of the Scientific Committee of the 7th Empirical Health
,	Economics Workshop, Ispra (VA)
July 2020	Webinar: Covid-19 Pandemic: Challenges and Opportunities for Healthcare
•	Systems
June 2019	Member of the Local Organizing Committee for the Intermediate SIS2019
	Conference
July 2018	Organizer and Member of the Scientific Committee of the 6th Empirical Health
	Economics Workshop, Bergamo
July 2016	Organizer and Member of the Scientific Committee of the 5th Empirical Health
	Economics Workshop, Bari
July 2016	Organizer and Member of the Scientific Committee of the 3rd Edition of the
	Summer School "Applied Health Econometrics and Health Policy," Bergamo
July 2015	Organizer and Member of the Scientific Committee of the 2nd Edition of the
	Summer School "Applied Health Econometrics and Health Policy," Bergamo
July 2014	Organizer and Member of the Scientific Committee of the Summer School
	"Applied Health Econometrics and Health Policy," Bergamo
July 2014	Organizer of the 4th Empirical Health Economics Workshop, Padova
December 2012	Organizer of the 3rd Empirical Health Economics Workshop, Siena
December 2012	Organizer of the Spatial Health Econometrics Training Course, CRISP, Siena
July 2010	Organizer of the 2nd Empirical Health Economics Workshop, Rome
December 2008	Organizer of the 1st Empirical Health Economics Workshop, Milan

Selected Presentations at Conferences and Seminars

21 Maggio 2024	"Comparing and Contrasting Rural versus Urban Health Care Access, Quality,
15 Marzo 2024	and Outcomes for elderly patients", Age-it General Meeting, Venezia Invited speaker al workshop "The role of statistics in medicine and healthca-
	re research con una relazione dal titolo "Brand loyalty and statins", ALTEMS
6 Dicembre 2023	Univeristà Cattolica del Sacro Cuore, Roma "Brand loyalty and statins", Associazione Italiana di Economia Sanitaria 2023
o Dicembre 2023	AIES Conference, Università La Sapienza, Roma
15 Settembre 2023	"Brand loyalty and statins", The Italian Society of Public Economics (SIEP)
7 Settembre 2023	XXXV Annual Conference, Università degli Studi di Verona, Verona Invited Speaker alla conferenza nazionale dell'associazione degli statistici appli-
7 Settembre 2025	cati ASA con una presentazione "Using administrative data in the evaluation of
	healthcare systems", presso l'Università degli Studi di Bologna.
7 Luglio 2023	"Brand loyalty and statins", American–European Health Economics Study
1 Febbraio 2023	Group Workshop, Harvard University (USA) "Network analysis of patient mobility in the Italian NHS", Giornate di Studio
	sulla Popolazione 2019, Università La Sapienza, Roma.
14 Settembre 2019	"The strange case of appropriate C-sections: DRG-tariff regulation, hospital
26 Gennaio 2019	ownership, and market concentration", APHEC 2019 Conference, Genova (Italy) "Does cooperation between hospitals increase the quality of healthcare?",
20 001111110 2019	Giornate di Studio sulla Popolazione 2019, Università Bocconi, Milano.
26 Settembre 2018	"Does cooperation between hospitals increase the quality of healthcare?",
17 Luglio 2018	CostNet 2018 Conference, Warsaw (Poland) "Patient mobility and hospital reputation in a competitive system", Health
17 248110 2010	Econometrics Workshop, Bergamo
14 Settembre 2017	e e
	Model", CLAssification and Data Analysis Group (CLADAG) of the Italian Statistical Society (SIS), University of Milano-Bicocca
8 Luglio 2017	"Cream Skimming and Healthcare Contracts Empirical Evidence from Italy",
	American–European Health Economics Study Group Workshop, Oxford (UK)
6 Settembre 2016	"Cluster Weighted Models for Count Data", Model Based Clustering Workshop, Catania
23 Luglio 2016	"DRG-based spending and outcomes in the treatment of Acute Myocardial
_	Infarction: a comparison between two regional healthcare systems in Italy",
14 Aprile	Health Econometrics Workshop, Bari Invited speaker al workshop internazionale Wennberg International Collabo-
т4 прине	rative (WIC) Spring Policy Meeting dal titolo "Reducing avoidable variation in
	Healthcare - A goal for regional strategies and actions" con una presentazione
	dal titolo "Measuring variation to improve effectiveness at the ward level: The experience of the Italian Network of Regions", Pisa (Italy)
12 Maggio 2015	Invited seminar presso la Brunel University Lodond con una presentazione dal
	tiolo "Statistical approaches in the evaluation of healthcare servivces", London
12 Marzo 2015	(UK) Invited seminar presso il centro CERGAS dell'Università Bocconi con una pre-
12 Wa120 2013	sentazione dal titolo "Freedom of choice, asymmetric information and the
	impact of competition on the quality of health care: evidence from Italy", Milan.
30 Giugno 20141	Invited speaker al workshop internazionale "Doing Research in Healthcare with Administrative Databases" on una presentazione dal titolo "Statistical
	evaluation in healthcare", Politecnico of Milan.
08 Dicembre 2012	"The effectiveness – efficiency trade-off in Lombardy hospitals" – 3rd Health
30 Maggio 2011	Econometrics Workshop, Siena "Performance measurements for healthcare services" – IES 2011 - Innovazione e
30 Maggio 2011	società, Firenze
29 Ottobre 2009	"The effects of Upcoding, Cream Skimming and Readmissions on the Italian
	Hospitals Efficiency: a Population - based investigation" – AIES, Bergamo

Participation in PhD Program Activities

Coordination in PhD Program Activities

Since November 2023 – Vice-Coordinator of the PhD Program in Public Health, Epidemiology, Statistics, and Economics at the University of Milan-Bicocca (Italy).

Scientific board

Since November 2023 – Member of the Academic Board of the PhD Program in Public Health, Epidemiology, Statistics, and Economics at the University of Milan-Bicocca (Italy).

November 2022 – October 2023 – Member of the Academic Board of the PhD Program in Economics, Statistics, and Data Science.

Teaching Assignments

Since 2023 (ongoing) – Lecturer responsible for the module "Statistical Evaluation of Health Services and Systems" in the PhD Program in Public Health, Epidemiology, Statistics, and Economics at the University of Milan-Bicocca (16 hours annually).

2016–2018 – Lecturer in the PhD Program in Statistics and Mathematical Finance at the University of Milan-Bicocca: course on Multilevel Models, Finite Mixture Models, and Cluster Weighted Models (12 hours annually).

2014–2015 – Lecturer in the PhD Program in Statistics and Mathematics at the University of Milan-Bicocca: course on Applications of Generalized Linear Models, Tobit and Heckman Models, and Structural Equation Models (12 hours annually).

Student Supervision Activities

Bernardo Paz Barboza (2nd year)

Sara Muzzì (1st year)

Thesis Referee and Panel Member Activities

2023 – Referee for the PhD thesis in Applied Economics and Management by Caterina Sturaro, University of Bergamo.

2020 – Referee for the PhD thesis in Economics by Andreea Piriu, University of Milan and Pavia. 2017 – Panel Member for the discussion of the PhD thesis in Economics by Andrea Riganti, University of Milan.

Scientific Supervision of Research Fellows

Since 2023 (ongoing)	Mohamed Mowafy – Duration: 36 months – Research Fellowship titled:
	"Impact evaluation of discharge planning on the continuity of care, patient
	outcomes, and hospital quality."
Since 2024 (ongoing)	Daniele Spinelli – Duration: 12 months – Research Fellowship titled: "Re-
	sponses to inequalities in chronic diseases: the challenge of measurement and
	management through an interregional perspective."

Visiting

May 8–10, 2024	Visiting at the London School of Hygiene and Tropical Medicine,
	London (UK)
June 4–15, 2018	Visiting at Brunel University London, funded as a Short Term Scien-
	tific Mission by COST Action CA15109 of the European Commission,
	London (UK)
July 12–16, 2017	Visiting at the Department of Economics and Business, Pompeu Fabra
	University, Barcelona (Spain)
January 23–February 4, 2017	Visiting at Brunel University London, funded as a Short Term Scien-
·	tific Mission by COST Action CA15109 of the European Commission,
	London (UK)

Editorial Activities for Scientific Journals

From 2019 memeber of the editorial team of the journal Statistica Applicata - Italian Journal of Applied Statistics (ISSN:1125-1964, E-ISSN:2038-5587) (https://www.sa-ijas.org/ojs/index.php/saijas/about/editorialTeam)

Selected Peer Review Activities for Scientific Journals

- Labour Economics
- Journal of Applied Econometrics
- Regional Science and Urban Economics
- Journal of the Royal Statistical Society: Series A
- Health Economics
- Health Policy
- Social Science and Medicine
- European Journal of Health Economics
- Economic Modelling
- Empirical Economic
- Economics and Human Biology
- Demographic research
- Health Services Management Research
- BMC Health Services Research

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- [2] Paolo Berta, Massimiliano Bratti, Carlo V Fiorio, Enrico Pisoni, and Stefano Verzillo. Administrative border effects in covid-19 related mortality. *Journal of the Royal Statistical Society Series A: Statistics in Society*, page qnae091, 2024.
- [3] Paolo Berta, Salvatore Ingrassia, Giorgio Vittadini, and Daniele Spinelli. Latent heterogeneity in covid-19 hospitalisations: a cluster-weighted approach to analyse mortality. *Australian & New Zealand Journal of Statistics*, n/a(n/a).
- [4] Fabio Borgonovo, Pietro Giorgio Lovaglio, Chiara Mariani, Paolo Berta, Maria Vittoria Cossu, Giuliano Rizzardini, Giorgio Vittadini, and Amedeo Ferdinando Capetti. Analysis and clinical determinants of post-covid-19 syndrome in the lombardy region: evidence from a longitudinal cohort study. *BMJ Open*, 14(2), 2024.
- [5] Marta Angelici, Paolo Berta, Joan Costa-Font, and Gilberto Turati. Multilevel governance in the first wave of covid-19. In *Handbook on the Political Economy of Health Systems*, pages 430–445. Cdward Elgar Publishing, 2023.
- [6] Marta Angelici, Paolo Berta, Joan Costa-Font, and Gilberto Turati. Divided We Survive? Multilevel Governance during the COVID-19 Pandemic in Italy and Spain. *Publius: The Journal of Federalism*, 02 2023. pjad002.

- [7] Ivan Merlo, Mariano Crea, Paolo Berta, Francesca Ieva, Flavia Carle, Federico Rea, Gloria Porcu, Laura Savaré, Raul De Maio, Marco Villa, Danilo Cereda, Olivia Leoni, Francesco Bortolan, Giuseppe Maria Sechi, Antonino Bella, Patrizio Pezzotti, Silvio Brusaferro, Gian Carlo Blangiardo, Massimo Fedeli, Giovanni Corrao, and on behalf of the Italian AlertCoV Project group. Detecting early signals of covid-19 outbreaks in 2020 in small areas by monitoring healthcare utilisation databases: first lessons learned from the italian alertcov project. *Eurosurveillance*, 28(1), 2023.
- [8] Lucia Salvioni, Filippo Testa, Adela Sulejmani, Francesca Pepe, Pietro Giorgio Lovaglio, Paolo Berta, Roberto Dominici, Valerio Leoni, Davide Prosperi, Giorgio Vittadini, Miriam Colombo, and Luisa Fiandra. Surfactant protein d (sp-d) as a biomarker of sars-cov-2 infection. *Clinica Chimica Acta*, 537:140–145, 2022.
- [9] Marta Angelici, Paolo Berta, and Giorgio Vittadini. The impact of covid-19 pandemic on the heal-thcare system in lombardy. In *The Economics of COVID-19*, pages 159–172. Emerald Publishing Limited, 2022.
- [10] Paolo Berta, Gianmaria Martini, Daniele Spinelli, and Giorgio Vittadini. The beaten paths effect on patient inter-regional mobility: An application to the italian nhs. *Papers in Regional Science*, 2022.
- [11] Giuseppe Arbia, Paolo Berta, and Carrie B. Dolan. Locational error in the estimation of regional discrete choice models using distance as a regressor. *The Annals of Regional Science*, 2022.
- [12] Paolo Berta, Veronica Vinciotti, and Francesco Moscone. The association between hospital cooperation and the quality of healthcare. *Regional Studies*, 0(0):1–16, 2022.
- [13] Camillo Rossi, Paolo Berta, Salvatore Curello, Pietro Giorgio Lovaglio, Mauro Magoni, Marco Metra, Aldo Maria Roccaro, Stefano Verzillo, and Giorgio Vittadini. The impact of covid-19 pandemic on ami and stroke mortality in lombardy: Evidence from the epicenter of the pandemic. *PLOS ONE*, 16(10):1–15, 10 2021.
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- [17] Paolo Berta, Gianmaria Martini, Massimiliano Piacenza, and Gilberto Turati. The strange case of less c-sections: Hospital ownership, market concentration, and drg-tariff regulation. *Health Economics*, 2020.
- [18] Paolo Berta and Veronica Vinciotti. Multilevel logistic cluster-weighted model for outcome evaluation in healthcare. *Statistical Analysis and Data Mining*, 2019.
- [19] Massimo Cannas, Paolo Berta, and Francesco Mola. Template matching for hospital comparison: an application to birth event data in italy. *Statistica & Applicazioni*, 2019.
- [20] Chiara Seghieri, Paolo Berta, and Sabina Nuti. Geographic variation in inpatient costs for acute myocardial infarction care: Insights from italy. *Health Policy*, 2019.
- [21] Alina Peluso, Paolo Berta, and Veronica Vinciotti. Do pay-for-performance incentives lead to a better health outcome? *Empirical Economics*, 56(6):2167–2184, Jun 2019.

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- [23] Tommaso Grillo Ruggieri, Paolo Berta, Anna Maria Murante, and Sabina Nuti. Patient satisfaction, patients leaving hospital against medical advice and mortality in italian university hospitals: a cross-sectional analysis. *BMC Health Services Research*, 18(51), 2018.
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