

ALEKSANDRA TORBICA, MSc, PhD

CONTACT & PERSONAL INFORMATION

Department of Social and Political Sciences, Bocconi University
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Email: aleksandra.torbica@unibocconi.it
Nationality: Serbian & Italian
Place of birth: Banjaluka, Bosnia & Herzegovina

KEY COMPETENCIES

*Health economics, Economic evaluation, Health Technology Assessment, Health economics modelling.
Health Services and Systems Research, Health Policy, Experimental design, Mixed- methods research*

CURRENT ACADEMIC POSITIONS

Since 2016	Associate Professor Department of Social and Political Sciences, Bocconi University
Since 2016	Director Centre for Research on Health and Social Care Management CERGAS SDA Bocconi School of Management, Bocconi University
Since 2019	President Italian Health Economic Association (AIES)

PAST ACADEMIC AND INSTITUTIONAL POSTS

2020-2021	Special advisor to the Chair Pan European Commission on Health and Sustainable Development, World Health Organization Regional Office for Europe
2012-2014	Director Master of International Health Care Management, Economics and Policy, SDA Bocconi School of Management
2012-2014	Coordinator Research Area Health Economics & HTA at Centre for Research on Health and Social Care Management-CERGAS, Università Commerciale Luigi Bocconi
2006-2011	Coordinator Master of International Health Care Management, Economics and Policy, SDA Bocconi School of Management

May – October 2007

Visiting Research Fellow

Centre for Health Economics, University of York, England
(Alan Williams Health Economics Foundation Fellowship)

EDUCATION

2004-2007

PhD in Economics and Management of Public Administrations University of Parma, Italy. Thesis: *"Tariff setting in the Italian NHS"*

2001-2002

Master of Science (with Honors) in International Health Care Management, Economics and Policy,
Università Commerciale Luigi Bocconi

1995-2000

University Degree in Pharmacy

University of Belgrade, Republic of Serbia. *Diploma awarded with Summa cum Laude and Departmental Honors; Awarded Government Scholarship for Excellence*

RESEARCH INTERESTS

My research interests pose on the intersection between three disciplines applied to health and healthcare: policy, economics and management. I am interested in exploring different methodologies stemming from these disciplines to investigate how economic evaluation analysis can influence and shape decision-making processes at macro (policy) and micro (management) levels in different context (developed and low-middle income countries). My research interests revolve around: (i) the use and impact of Health Technology Assessment (HTA) on decision making in healthcare and (ii) methodological issues in estimating outcomes and costs of healthcare technologies/programs/services; (iii) governance of healthcare systems and (iv) evaluation of health policy and programs.

COMPETITIVE RESEARCH GRANTS

2020 – Principal Investigator of the project "Evaluating the impact of electronic Logistic Management Information Systems (eLMIS) and Electronic Immunization Registries (EIR) in low- and middle-income countries" funded by Bill & Melinda Gates Foundation

2020 – Lead Researcher for Bocconi University "The Quality Improvement of Integrated HIV, Tuberculosis and Malaria in Antenatal and Postnatal Care in Tanzania, Kenya and Nigeria: Economic Evaluation" funded by Global Fund and in collaboration with Liverpool School of Tropical Medicine, UK

2018–2020 Project Director of COMED (Pushing the boundaries of Cost and Outcome Analysis of Medical Technologies) – a 3 year, EU Horizon 2020 grant

2019-2022 Lead Researcher for Bocconi University - Modelling effectiveness, cost-effectiveness and promoting health care value in the real world. The Motive project – a 3 year PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2017 - MIUR

2017-2020 Lead Researcher for Bocconi University - IQCE (Improving quality of care in Europe) – a 4 year EU ETN grant

2015-2016 Co-principal investigator of A Mixed-Methods Evaluation of A Usaid Performance Based Incentives Program to Improve The Uptake And Quality Of Essential Health Care Services In Malawi. USAID - Translating Research into Action. Responsible for the WP dedicated to cost analysis.

2013-2015 Deputy Project Director of MedtecHTA (Methods for HTA of medical devices: a European Perspective). A 3-year, two-stages, EU Seventh Framework Programme (FP7) grant.

2011-2012 Co-principal investigator of Agenda - setting criteria for the abolition of user fees health policies in West Africa, funded by Africa Initiative Grant at the Centre for International Governance Innovation.

2009-2012 Lead Researcher for University Bocconi in ECHOUTCOME - European Consortium in Healthcare Outcomes and Cost-Benefit research. A 3-year, two-stages, EU Seventh Framework Programme (FP7) grant.

2005-2008 Lead Researcher for University Bocconi in Health Benefits and Service Costs in Europe (HealthBASKET project) – Sixth Framework Programme, EC. A 3-year, two-stages, EU Sixth Framework Programme (FP6) grant.

TEACHING

Graduate and Master level courses

- Co-instructor of Public Accounting and Performance Management – core course at the MSc Government and International Organizations (GIO), Graduate School, Bocconi University
- Main instructor of Health Technologies & Market Access – elective course at the Graduate School, Bocconi University
- Co-instructor of Economic Evaluation Analysis of Healthcare Programmes – compulsory course at MIHMEP (Master in International Healthcare Management, Economics and Policy), SDA-Bocconi (since 2002)
- Main instructor of Decision Analysis in Healthcare- elective course at MIHMEP (Master of International Healthcare Management, Economics and Policy), Bocconi University, Milan (since 2004)
- Main instructor of Advanced Economic Evaluation in Health Care –elective course at MIMS (Master of Health Care Management), Bocconi University, Milan (since 2007)
- Co- Instructor of Economic Evaluation in Healthcare - compulsory course at MIMS (Master of Health Care Management – taught in Italian)), Bocconi University, Milan. (2007-2010)
- Visiting instructor in “Mixed Methods Research for International Health”- University of Heidelberg, Germany (2012)

Undergraduate level courses

- Co-Instructor of Public Management – optional course at Degree in International Economics, Management and Finance (BIEMF) and World Bachelor in Business (WBB), Bocconi University, Milan (since 2009)
- Main Instructor of Economics and Management in Public Organizations – compulsory course for the Degree in Economics and Management (CLEAM), Bocconi University, Milan (years 2007-2011)

Executive level courses

- Extensive teaching at Executive level in the areas of economic evaluation analyses and health technology assessment

PUBLICATIONS

International peer-reviewed journals (selection)

Monti M, **Torbica A**, Mossialos E, McKee M. A new strategy for health and sustainable development in the light of the COVID-19 pandemic. *Lancet*. 2021; 398(10305):1029-1031.

Chandler T, Neumann-Bohme S, Sabat I, **Torbica A** et al. Blood donation in times of crisis: Early insight into the impact of COVID-19 on blood donors and their motivation to donate across European countries. *Vox Sang*. 2021;116(10):1031-1041.

Townsend N, Kazakiewicz D, Lucy Wright F...**Torbica A** et al. Epidemiology of cardiovascular disease in Europe. *Nat Rev Cardiol*. 2021.

Tarricone R, Listorti E, Tozzi V, **Torbica A** et al. Transformation of cancer care during and after the COVID pandemic, a point of no return. the experience of Italy. *J Cancer Policy*. 2021;29

Pongiglione B, **Torbica A**, Gale CP, Tavazzi L, Vardas P, Maggioni AP. Patient, hospital and country-level risk factors of all-cause mortality among patients with chronic heart failure: Prospective international cohort study. *PLoS One*. 2021;16(5): e0250931

Torbica A, Rognoni C, Tarricone R. Investigating patients' preferences to inform drug development decisions: Novel insights from a discrete choice experiment in migraine. *Int J Environ Res Public Health*. 2021;18(9)

Tarricone R, Amatucci F, Armeni P, **Torbica A** et al. Establishing a national HTA program for medical devices in Italy: Overhauling a fragmented system to ensure value and equal access to new medical technologies. *Health Policy*. 2021;125(5):602-608

Varghese NE, Sabat I, Neumann-Bohme S, **Torbica A** et al. Risk communication during COVID-19: A descriptive study on familiarity with, adherence to and trust in the WHO preventive measures. *PLoS One*. 2021;16(4)

Pongiglione B, **Torbica A**, Blommestein H, et al. Do existing real-world data sources generate suitable evidence for the HTA of medical devices in Europe? mapping and critical appraisal. *Int J Technol Assess Health Care*. 2021;37(1): e62.

Federici C, **Torbica A**. Expanding the role of early health economic modelling in evaluation of health technologies comment on "problems and promises of health technologies: The role of early health economic modeling". *Int J Health Policy Manag*. 2021;10(2):102-105.

Varghese NE, Santoro E, Lugo A, **Torbica A** et al. The role of technology and social media use in sleep-onset difficulties among Italian adolescents: Cross-sectional study. *J Med Internet Res*. 2021;23(1): e20319.

Pongiglione B, **Torbica A**, Gusmano MK. Inequalities in avoidable hospitalisation in large urban areas: Retrospective observational study in the metropolitan area of Milan. *BMJ Open*. 2020;10(12)

Wang Y, Ghislandi S, **Torbica A**. Investigating the geographic disparity in quality of care: The case of hospital readmission after acute myocardial infarction in Italy. *Eur J Health Econ*. 2020;21(8):1149-1168.

Tarricone R, Ciani O, **Torbica A**, et al. Lifecycle evidence requirements for high-risk implantable medical devices: A European perspective. *Expert Rev Med Devices*. 2020;17(10):993-1006.

Nguyen HT, Torbica A, Brenner S, **Torbica A** et al. Economic evaluation of user-fee exemption policies for maternal healthcare in Burkina Faso: Evidence from a cost-effectiveness analysis. *Value Health*. 2020;23(3):300-308

Timmis A, Townsend N, Gale CP., **Torbica A** et al. European society of cardiology: Cardiovascular disease statistics 2019. *Eur Heart J*. 2020;41(1):12-85.

Drummond M, **Torbica A**, Tarricone R. Should Health Technology Assessment be more patient-centric? If so, how? *European Journal of Health Economics*, 2020.

Torbica A, Fornaro G, Tarricone R, Drummond M, Do Social Values and Institutional Context Shape the Use of Economic Evaluation in Reimbursement Decisions? An Empirical Analysis, *Value in Health* 2020, vol. 23, no. 1, pp. 17-24.

Wang Y; Mckee M; **Torbica A**; Stuckler D, "Systematic literature review on the spread of health-related misinformation on social media", *Social Science and Medicine*, 2019, 240, 112552

De Allegri M, Makwero C, **Torbica A**, "At what cost is performance-based financing implemented? Novel evidence from Malawi", *Health Policy and Planning*, 2019, 24(4), pp. 282-288

Torbica A, "HTA around the world: broadening our understanding of cross-country differences", *Value in Health*, 2019.

Banks H, **Torbica A**, Valzania C, Varabyova Y, Prevolnik Rupel V, Taylor RS, Hunger T, Walker S, Boriani G, Fattore G, "Five year trends (2008-2012) in cardiac implantable electrical device utilization in five European nations: a case study in cross-country comparisons using administrative databases", *Europace* 2018, 20(4), pp. 643-653

Torbica A, Tarricone R, Drummond M, "Does the approach to economic evaluation in health care depend on culture, values, and institutional context?", *European Journal of Health Economics*, 2018, 19(6):769-774.

Tarricone, R., **Torbica, A.**, and Drummond, M. (2017) Challenges in the Assessment of Medical Devices: The MedtechHTA Project. *Health Economics*, 26: 5–12.

Tarricone, R., **Torbica, A.**, Drummond, M., and for the MedtechHTA Project Group (2017) Key Recommendations from the MedtechHTA Project. *Health Economics*, 26: 145–152.

Hatz, M. H. M., Schreyögg, J., **Torbica, A.**, Boriani, G., and Blankart, C. R. B. (2017) Adoption Decisions for Medical Devices in the Field of Cardiology: Results from a European Survey. *Health Economics*, 26: 124–144.

Torbica, A., Banks, H., Valzania, C., Boriani, G., and Fattore, G. (2017) Investigating Regional Variation of Cardiac Implantable Electrical Device Implant Rates in European Healthcare Systems: What Drives Differences?. *Health Economics*, 26: 30–45.

Marsilio M, **Torbica A**, Villa S. (2017) Healthcare Multidisciplinary Teams: The Sociotechnical approach for an integrated system-wide perspective. *Health Care Management Review* 42 (4), 303-314

Varabyovaa Y, Blankart CR, **Torbica A**, Schreyögg J. (2017) Comparing the Technical Efficiency of Hospitals in Italy and Germany: Nonparametric Conditional Approach. *Health Care Management Science* 20 (3), 379-394

- G Callea, MC Cavallo, R Tarricone, **A Torbica**. Learning effect and diffusion of innovative medical devices: the case of transcatheter aortic valve implantation in Italy *Journal of comparative effectiveness research* 6 (4), 279-292
- Drummond, M., Tarricone, R. & **Torbica, A.** (2016) Eur J Health Econ 17 (9), 1055-1058
- Albiro G, **Torbica A**, DeAllegri M. (2016) What factors drive heterogeneity of preferences for micro health insurance in rural Malawi?, *Health Policy & Planning* 31 (9), 1172-1183
- Torbica A**, Maggioni A. Ghislandi S. (2015) Economic crisis and Acute Myocardial Infarction: new evidence using hospital-level data. *PloS One* 10 (11) e0142810
- Valzania C, **Torbica A**, Tarricone R, Lyve F, Boriani G. (2015) Implant rates of cardiac implantable electrical devices in Europe: A systematic literature review. *Health Policy* 120 (1): 1-15
- Torbica A**, Calciolari S. Fattore G. (2015) Does informal care impact utilization of healthcare services? Evidence from a longitudinal study of stroke patients. *Social Science & Medicine*. 124; 29-38
- Sorenson C, Drummond M, **Torbica A**, Callea G, Mateus C. (2015) The Role of Hospital Payments in the Adoption of New Medical Technologies: An International Survey of Current Practice, *Health Economics, Policy and Law* Apr;10 (2): 133-59
- Albiro G, **Torbica A**, Kwalamasa K, De Allegri M. (2014) Eliciting community preferences for complementary micro health insurance: a discrete choice experiment in rural Malawi. *Social Science & Medicine*, 120:160-168
- Tarricone R, **Torbica A**, Ferre F, Drummond M. (2014) Generating Appropriate Clinical Data for Value Assessment of Medical Devices: What Role Does Regulation Play? *Expert Review of Pharmacoeconomics and Outcome Research* 14 (5), 707-718
- Beresniak A, Medina-Lara A, Auray JP, De Wever, Praetf JC, Tarricone R, **Torbica A**, Dupont D, Lamure M, Durue G. (2014) Validation of the Underlying Assumptions of the QALY Outcome - Results from the ECHOUTCOME European Project - *Pharmacoeconomics* 33 (1) 61-69
- Torbica A**, De Allegri M, Belemsaga DY, Medina-Lara A, Ridde V. (2014) What criteria guide policy decisions on user fee removal for maternal healthcare services? Results from a Best-Worst Scaling choice experiment in West Africa. *Journal of Health Service Research and Policy* Oct 19(4):208-15.
- Petrarca G, Fattore G, **Torbica A**. (2014) Travelling for care: evidence about inter-regional mobility for aortic valve substitution in Italy – *Health Policy* Jul, 117(1):90-7.
- Torbica A**, Fattore G, Ayala, F. (2014) Eliciting Preferences to Inform Patient-Centred Policies: the Case of Psoriasis. *PharmacoEconomics*, 32, 209-223.
- Angus C, Scafato E, Ghirini S, **Torbica A**, Ferre F, Struzzo P. (2014). Cost-effectiveness of a programme of screening and brief interventions for alcohol in primary care in Italy. *BMC Family Practice*, 15, 26.
- Calciolari S., **Torbica A**, Tarricone R. (2013) Explaining the Health Costs Associated with Managing Intracranial Aneurysms in Italy. *Applied health economics and health policy*, 11, 427-435.

Drummond M, Tarricone R, **Torbica A.** (2013) Assessing the Added Value of Health Technologies: Reconciling Different Perspectives. *Value in Health*, 16 (1), S7-S13

Ghislandi S, **Torbica A**, Boriani G. (2013) Assessing the outcomes of implantable cardioverter defibrillator treatment in a real world setting: results from hospital record data. *BMC Health Services Research*, 13:100

Ciani O, Tarricone R, **Torbica A.** (2012) Diffusion and use of health technology assessment in policy making: What lessons for decentralised healthcare systems? *Health Policy* 20;108(2-3):194-202

Fattore G, **Torbica A**, Susi A, Aguzzi G, Benelli G, Gozzo M, Vito T. (2012) The social and economic burden of stroke survivors in Italy: a prospective. incidence-based, multi-centre cost of illness study. *BMC Neurol*, Nov 14;12(1):137

Torbica A. Fattore G. (2010) Understanding the impact of economic evidence on clinical decision making: a discrete choice experiment in cardiology *Social Science & Medicine* May;70(10):1536-43

Tarricone R, **Torbica A**, Franzetti F, Rosenthal VD. (2010) Hospital costs of central line-associated bloodstream infections and cost-effectiveness of closed vs. open infusion containers. The case of Intensive Care Units in Italy. *Cost Eff Resour Alloc* , 8(-):8

Torbica A, Cappellaro G. (2010) Uptake and diffusion of medical technology innovation in Europe: What role for funding and procurement policies?. *Journal of Medical Marketing* 10: 61-69

Cappellaro G, Fattore G, **Torbica A.** (2009) Funding health technologies in decentralized systems: A comparison between Italy and Spain. *Health Policy* 92 (2-3):313-21

Gerzeli S, **Torbica A**, Fattore G. (2009) Cost utility analysis of microprocessor controlled knee prosthesis in Italy. *European Journal of Health Economics* 10(1):47-55

Fattore G, **Torbica A.** (2008) Cost and reimbursement of cataract surgery in Europe: a cross country comparison. *Health Economics* 17: S71-82

Fattore G, **Torbica A.** (2006) Inpatient reimbursement system in Italy: how do tariffs relate to costs? *Health Care Management Science* 9:251-258

Fattore G, **Torbica A.** (2006) Economic evaluation in health care: the point of view of informed physicians. *Value in Health* May-Jun;9(3):157-67

Torbica A, Fattore G. (2005) The Essential Levels of Care in Italy: when being explicit serves the devolution of powers. *European Journal of Health Economics*, Dec:S46-52

Book chapters (international)

- Tarricone R, **Torbica A.** Basic Principles of Health Technology Assessment, Economic Evaluation, and Costing of Healthcare Programs. In: *Abdominal Wall Surgery*, Greco DP and Borgonovi E (eds), Springer Cham, 2019; pp:141-156.

- Drummond M, Tarricone R, **Torbica A.** Economic Evaluation of Medical Devices in Oxford Research Encyclopedia of **Economics** and Finance 2018
- Ciani O., **Torbica A.**, Lecci, F.; Morelli, M.; Drummond, M.; Tarricone, R.; De Cicco, M.; Russo, S.; Del Bene, L. (2018) Myth #5. Health care is rightly left to the private sector, for the sake of efficiency in *The myths of healthcare* (Adinolfi P., Borgonovi E. eds), Springer, pp. 123-128
- Tarricone R, **Torbica A.** (2012) Costing and performance in healthcare management. In: Faltin, F.W, Kenett, R.S., Ruggeri, F. *Statistical methods in healthcare*. Wiley. p. 386-404.

Italian peer-reviewed journals

- Callea G, **Torbica A.**, Tarricone R. (2014) Impatto del sistema di finanziamento a DRG sull'innovazione tecnologica in sanità. Il caso italiano. *Mecosan*; 22 (89): 31-47
- **Torbica A.**, Tarricone R, Calciolari S, Branca V, Gaini SM. (2009) Analisi dei costi del trattamento di aneurisma intracranico in Italia *Pharmacoeconomics. Italian Research Articles*; 11 (1): 25-37
- **Torbica A.**, Tarricone R, Musi F. (2008) Analisi dei costi della procedura angioplastica coronarica per via transradiale in regime ambulatoriale in Italia. *Economia e Politica del Farmaco*; 8: 0-15
- Fattore G, **Torbica A.** (2007) La valutazione economica in sanità: i decision-makers utilizzano gli studi? *Economia e Politica del Farmaco*; 9:137-152
- Fattore G, **Torbica A.** (2006) Il ruolo delle variabili organizzative nella diffusione dell'innovazione tecnologica: il caso dell'infarto miocardico acuto, *Economia e Politica del Farmaco*; 5: 35-46
- Fattore G. **Torbica A.** (2005) Costi del trattamento della BPCO in Italia: un'applicazione del metodo bootstrap. *Pharmacoeconomics. Italian Research Articles* ; 7:135-143

Book chapters (in Italian)

- Armeni, P., Boscolo P, Callea G, Cavallo Mc, Ciani O, Costa F, Ghislandi S, Tarricone R, **Torbica A.**, Prezzi di riferimento per dispositivi medici: criticità, vantaggi e approcci in *L'aziendalizzazione della sanità in Italia. Rapporto OASI 2018*, CERGAS Ed., Egea, pp. 567-586, 2018
- Tarricone R, Ciani O, **Torbica A.**, et al. (2017) Programma Nazionale di HTA per dispositivi medici: prove tecniche di implementazione in *L'aziendalizzazione della sanità in Italia - Rapporto OASI*, EGEA, Milano,
- Boscolo P, Tarricone R, Ciani O, **Torbica A.** (2015) La funzione di HTA nelle aziende sanitarie italiane: un potenziale ancora inutilizzato? in *L'aziendalizzazione della sanità in Italia - Rapporto OASI*, EGEA, Milano, p. 583-605.
- Boscolo P, Ciani O, **Torbica A.** (2012) I processi di valutazione dei dispositivi medici e delle tecnologie sanitarie. In: Rosanna Tarricone. *Politiche per la salute e scelte aziendali. Impatto sull'innovazione e diffusione delle tecnologie mediche*. EGEA, Milano p. 159-186.
- Fattore G, **Torbica A.** (2010) Equità territoriale: definizioni, evidenze empiriche e politiche appropriate in *L'aziendalizzazione della sanità italiana-Rapporto OASI*, EGEA, Milano, p. 263-288.

- Carbone C, Jommi C, **Torbica A.** (2006) Tariffe e finanziamento dell'innovazione tecnologica: analisi generale focus su due casi regionali (Emilia Romagna e Lombardia) in *L'aziendalizzazione della sanità italiana-Rapporto OASI* EGEA, Milano, p. 267-303
- Otto M, Paruzzolo S, **Torbica A.** (2004) Il governo regionale dell'assistenza farmaceutica: un quadro delle iniziative adottate nel 2003. in *L'aziendalizzazione della sanità italiana-Rapporto OASI*, EGEA, Milano, p. 261-283

ACTIVITY AS REFEREE AND EDITOR

Since 2015 - Co-Editor- *Value in Health*

Referee for the following journals (in alphabetical order):

Applied Health Economics and Health Policy, BMJ Open, Expert Review of Medical Devices, Expert Review of Pharmacoeconomics and Outcome Research, European Journal of Health Economics, Health Policy, Implementation Science, International Journal of Technology Assessment in Health Care, Pharmacoeconomics, Regional Studies, Social Science and Medicine, Value in Health.

RESEARCH FELLOWSHIPS AND AWARDS

2013	Research Excellence Award, Bocconi University, Milan
2011	Research Excellence Award, Bocconi University, Milan
2010	Research Excellence Award, Bocconi University, Milan
2010	International Award "Vivisalute" for academic research
2009	Research Excellence Award, Bocconi University, Milan
2007	Alan Williams Research Fellowship, University of York, England

PROFESSIONAL MEMBERSHIPS

iHEA -international Health Economics Association
 ISPOR - International Society of Outcome Research
 HTAi - international Health Technology Assessment Association
 AIES - Italian Association of Health Economics

RELEVANT SKILLS

Extensive knowledge of STATA, Tree Age
 Fluent in English, Italian and Serbian language