

# ALESSIA MELEGARO

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## CURRENT PROFESSIONAL ROLES

- 2022 – **Full Professor in Demography and Social Statistics**, Department of Social and Political Science, Bocconi University, Milan, Italy
- 2020 – Director, Health Emergencies Analytics Lab (HEAL, ex Covid Crisis Lab), Bocconi University, Milan, Italy
- 2020 – Director, Master in Data Science and Business Analytics, Bocconi University, Milan, Italy

## PREVIOUS PROFESSIONAL EXPERIENCES

- 2017 – 2022 **Associate Professor**, Department of Social and Political Science, Bocconi University, Milan, Italy
- 2012 – 2017 **Assistant Professor**, Department of Social and Political Science, Bocconi University, Milan, Italy
- 2008 - 2012 **Research Fellow**, Dondena Centre for Research in Social Dynamics and Public Policy, Bocconi University, Milan, Italy
- 2004 – 2008 **Research Scientist** - Statistics, Modelling and Economics Department, Health Protection Agency (now Public Health England), Centre for Infections, Colindale, London, UK.

## NATIONAL ROLES DURING COVID-19 PANDEMIC

- 2021 – 2023 Member of the **National Scientific Technical Committee for Covid-19 Emergency**
- 2020 – 2024 Member of the **Regional (Lombardy) Scientific Technical Committee for the Covid-19 Emergency**

## MEMBERSHIPS

- 2012 – Associate Fellow, **Dondena Centre for Research in Population Dynamics and Public Policy**, Bocconi University, Milan, Italy
- 2015 – Associate fellow of the **Centre for Research on Health and Social Care Management (CERGAS)**, Global Health, SDA Bocconi, Milan, Italy
- 2016 – Associate faculty member of the **Bocconi Institute for Data Science and Analytics (BIDSA)**, Bocconi University, Milan, Italy

## EDUCATION

- 2005 **PhD in Biological Sciences**  
Ecology and Epidemiology Group, Department of Biological Sciences, Warwick University, United Kingdom
- 2000 **Research Degree Student** (awarded an MRC fellowship), London School of Hygiene and Tropical Medicine, London, UK
- 1998 **BA (with distinction) in Economics**, Department of Decision Sciences, Bocconi University, Milan, Italy

## SHORT BIO

I am currently a Full Professor at the Department of Social and Political Science at Bocconi University, Milan, where I am the Director of the Covid Crisis Lab and of the Master in Data Science and Business Analytics (DSBA). I hold a Master Degree in Economics and a PhD in Quantitative Epidemiology obtained at the Department of Biological Science at Warwick University. My main research interests lie at the intersection of epidemiology, demography, behavioural sciences and public health with a special focus on infectious disease epidemiology and on the effects of control

programs. In particular, I use quantitative methods to evaluate the effectiveness and cost-effectiveness of alternative public health interventions, particularly immunization strategies, and to understand the mechanisms behind individuals' decisions to comply to public health measures. I have been awarded two ERC Grants on modelling infectious diseases and particularly on incorporating dynamic demographic structures and human behaviours into the epidemiological modelling framework, both in developed and developing contexts. I have been a member of the National and Regional Technical Committee for the Covid-19 pandemic emergency.

## INSTITUTIONAL RESPONSIBILITIES

- 2014 – Member of the **Faculty Council for the PhD** in Social and Political Science, Bocconi University
- 2011 – Faculty member of the **Management Board, Dondena Centre** for Research on Social Dynamics and Public Policy, Bocconi University, Milan, Italy
- 2012 – Sitting on several internal **Bocconi Committees** and Working Groups, among which: University Research Committee (RECO), Departmental Executive Committee, Departmental Hiring Committees (Research Assistants, Post-docs, Assistant Professors), Teaching Committees, Web and Students Support Committee, Equal Opportunities Committee, Working Group for the design of the new MSc Degree in Data Science and Business Analytics.

## AWARDED GRANTS

**Partner in the Consortium (2024-2025)** - Behaviour and sentiment monitoring and modelling for outbreak control / (BEHAVE - MOD). Accordo di concessione di finanziamento PNRR nell'ambito del Bando a Cascata COC-1- 2023-ISS-02. Euros: 3M

**PI: European Research Council Consolidator Grant (2021-2026)** – Modelling human behavior in infectious disease spread (IMMUNE). Euros: 2M

**PI: European Research Council Starting Grant (2012-2017)** - The impact of DEMographic Changes on Infectious DisEase transmission and control in middle/low income countries (DECIDE). Euros: 1.21M.

**Co-PI: Cariplo Foundation (2017-2018)** – Immigrants' social network and the transmission of health-related behaviours and outcomes (NetHealth). Euros: 80K.

**WP Leader: Autonomous Province of Trento, Bando Grandi Progetti (2013-2017)** – Laboratory of Excellence for Epidemiology and Modelling (LExEM). Facing the introduction and spread of Invasive Alien Species (IAS). Euros: 1.16M.

**PI: World Health Organisation - Open call (2008-2010).** Optimization of vaccination schedules in low and middle-income countries. Euros: 150K.

**WP Leader: European Communicable Disease Centre (2009-2012):** Vaccine preventable disease modelling in the European Union and EEA/EFTA - Forecasting the effects of introducing a new vaccine in a national and regional program. Euros 265K.

**Researcher: European Union FP7 (2008-2011).** Modelling the spread of pandemic influenza and strategies for its containment and mitigation (FLUMODCONT). Euros: 2.8M.

**Researcher: European Union FP6 (2004-2008).** Improving Public Health Policy in Europe through Modelling and Economic Evaluation of Interventions for the Control of Infectious Diseases (POLYMOD). Euros: 1.6M.

**Researcher: European Union FP5 (2000-2003).** Pneumococcal disease in Europe (PNC-EURO). Euros: 2.1M

## TEACHING ACTIVITIES

- 2019 - ongoing Course Director - Modelling and Simulations, Bocconi University, Graduate School
- 2012 - ongoing Course Director – Decision Analysis in Healthcare, MIHMEP, Bocconi University, SDA School
- 2015 – 2021 Course Director – Agent Based Modelling and Simulation, Bocconi University, PhD School
- 2013 – 2021 Professor – Applications for Management, Bocconi University, Undergraduate School
- 2012 - 2013 Professor – Public Economics, Bocconi University, Undergraduate School
- 2010 - 2014 Lecturer – International Demography, Bocconi University, Graduate School
- 2005 - 2007 Lecturer – Epidemiological Methods and Mathematical Modelling, London School of Hygiene and Tropical Medicine, MSc Course and Summer School

## PEER-REVIEWED PUBLICATIONS

(Google Scholar: 6488 citations HI-index: 43. Last updated September 2025)

- Antonini, Marcello, et al. "Democracy, Trust, and Political Orientation: Disentangling Mechanisms Shaping Individuals' Vaccine Attitudes." *Journal of health politics, policy and law* (2025): 12166725.
- Antonini M, Genie MG, Attwell K, Attema AE, Ward JK, Melegaro A, .. Paolucci F. (2025) Are we ready for the next pandemic? Public preferences and trade-offs between vaccine characteristics and societal restrictions across 21 countries. *Soc Sci Med*. 2025 Feb; 366:117687. doi: 10.1016/j.socscimed.2025.117687.
- Kiti MC, Sacoar C, Aguolu OG, ..., Lopman B. (2025) Social Contact Patterns in Rural and Urban Settings, Mozambique, 2021-2022. *Emerg Infect Dis*. Jan;31(1):94-103. doi: 10.3201/eid3101.240875.
- Aguolu, OG., Kiti, MC., Nelson, K., Liu, CY., Sundaram, M., Gramacho, S., ... (2024) Comprehensive profiling of social mixing patterns in resource poor countries: A mixed methods research protocol. *PLoS one* 19 (6), e0301638
- Antonini, M., Genie, M. G., Attema, A. E., Attwell, K., Balogh, Z. J., Behmane, D., ... & Paolucci, F. (2024). Public preferences for vaccination campaigns in the COVID-19 endemic phase: insights from the VaxPref database. *Health Policy and Technology*, 13(1), 100849.
- Kiti, M. C., Aguolu, O. G., Zelaya, A., Chen, H. Y., Ahmed, N., Batross, J., ... & Lopman, B. A. (2023). Changing social contact patterns among US workers during the COVID-19 pandemic: April 2020 to December 2021. *Epidemics*, 45, 100727.
- Shayegh, S., Andreu-Perez, J., Akoth, C., Bosch-Capblanch, X., Dasgupta, S., Falchetta, G., ... & Melegaro, A. (2023). Prioritizing COVID-19 vaccine allocation in resource poor settings: Towards an Artificial Intelligence-enabled and Geospatial-assisted decision support framework. *Plos one*, 18(8), e0275037.
- Sheppard, R. J., Watson, O. J., Pieciak, R., Lungu, J., Kwenda, G., Moyo, C., ... & Gill, C. J. (2023). Using mortuary and burial data to place COVID-19 in Lusaka, Zambia within a global context. *Nature Communications*, 14(1), 3840.
- Chiavenna, C., Leone, L. P., Melegaro, A., Rotesi, T., Bokemper, S. E., Paintsil, E. E., ... & Pin, P. (2023). Personal risk or societal benefit? Investigating adults' support for COVID-19 childhood vaccination. *Vaccine*, 41(25), 3683-3687.
- Aguolu, O. G., Willebrand, K., Elharake, J. A., Qureshi, H. M., Kiti, M. C., Liu, C. Y., ... & Omer, S. B. (2022). Factors influencing the decision to receive seasonal influenza vaccination among US corporate non-healthcare workers. *Human vaccines & immunotherapeutics*, 18(6), 2122379.
- Trentini, F., Manna, A., Balbo, N., Marziano, V., Guzzetta, G., O'Dell, S., ... & Melegaro, A. (2022). Investigating the relationship between interventions, contact patterns, and SARS-CoV-2 transmissibility. *Epidemics*, 40, 100601.
- Trentini, F., Marziano, V., Guzzetta, G., Tirani, M., Cereda, D., Poletti, P., ... & Merler, S. (2022). Pressure on the health-care system and intensive care utilization during the COVID-19 outbreak in the Lombardy region of Italy: a retrospective observational study in 43,538 hospitalized patients. *American Journal of Epidemiology*, 191(1), 137-146.
- Poletti P, Tirani M, Cereda D, Guzzetta G, Trentini F, Marziano V, Toso C, Piatti A, Piccarreta R, Melegaro A, Andreassi A, Gramegna M, Ajelli M, Merler S. Seroprevalence of and Risk Factors Associated With SARS-CoV-2 Infection in Health Care Workers During the Early COVID-19 Pandemic in Italy. *JAMA Netw Open*. 2021 Jul 1;4(7):e2115699. doi: 10.1001/jamanetworkopen.2021.15699.
- Mousa A, Winskill P, Watson OJ, Ratmann O, Monod M, Ajelli M, Diallo A, Melegaro A, et al. Social Contact Patterns and Implications for Infectious Disease Transmission: A Systematic Review and Meta-Analysis of Contact Surveys. medRxiv [Preprint]. 2021 Jun 15:2021.06.10.21258720. doi: 10.1101/2021.06.10.21258720.
- Rotesi T, Pin P, Cucciniello M, Malik AA, Paintsil EE, Bokemper SE, Willebrand K, Huber GA, Melegaro A, Omer SB. National interest may require distributing COVID-19 vaccines to other countries. *Sci Rep*. 2021 Sep 14;11(1):18253. doi: 10.1038/s41598-021-97544-5.
- Bokemper SE, Cucciniello M, Rotesi T,..., Melegaro A. Experimental evidence that changing beliefs about mask efficacy and social norms increase mask wearing for COVID-19 risk reduction: Results from the United States and Italy. *PLoS One*. 2021 Oct 11;16(10):e0258282. doi: 10.1371/journal.pone.0258282.

- Duch R, Roope LSJ, Violato M, Fuentes Becerra M, Robinson TS, Bonnefon JF, Friedman J, Loewen PJ, Mamidi P, Melegaro A, et al. Citizens from 13 countries share similar preferences for COVID-19 vaccine allocation priorities. *Proc Natl Acad Sci U S A*. 2021 Sep 21;118(38):e2026382118. doi: 10.1073/pnas.2026382118.
- Trentini, F., Marziano, V., Guzzetta, G., Tirani, M., Cereda, D., Poletti, P., ... Melegaro, A., Merler, S. (2021). Healthcare strain and intensive care during the COVID-19 outbreak in the Lombardy region: a retrospective observational study on 43,538 hospitalized patients. *Accepted, July 2021, American Journal of Epidemiology, in press*.
- Cucciniello M, Pin P, Imre B, Porumbescu GA, Melegaro A. Altruism and vaccination intentions: Evidence from behavioral experiments. *Soc Sci Med*. 2021 Jul 13;114195. doi: 10.1016/j.socscimed.2021.114195.
- Liu CY, Berlin J, Kiti MC, Del Fava E, Grow A, Zagheni E, Melegaro A, Jenness SM, Omer SB, Lopman B, Nelson K. Rapid Review of Social Contact Patterns During the COVID-19 Pandemic. *Epidemiology*. 2021 Nov 1;32(6):781-791.
- Kiti, M. C., Aguolu, O. G., Liu, C., Restrepo, A. M., Regina, R., Willebrand, K., ... Melegaro, A., & Omer, S. B. (2021). Social contact patterns among employees in 3 US companies during early phases of the COVID-19 pandemic, April to June 2020. *Epidemics* (2021): 100481.
- Clarke PM, Roope LSJ, Loewen PJ, Bonnefon JF, Melegaro A, Friedman J, Violato M, Barnett A, Duch R. Public opinion on global rollout of COVID-19 vaccines. *Nat Med*. 2021 Jun;27(6):935-936. doi: 10.1038/s41591-021-01322-9.
- Trentini, F., Guzzetta, G., Galli, M., Zardini, A., Manenti, F., Putoto, G., Melegaro, A., & Poletti, P. (2021). Modeling the interplay between demography, social contact patterns, and SARS-CoV-2 transmission in the South West Shewa Zone of Oromia Region, Ethiopia. *BMC medicine*, 19(1), 1-13.
- Poletti, P., Tirani, M., Cereda, D., Trentini, F., Guzzetta, G., Sabatino, G., Melegaro, A., ... & Force, T. (2021). Association of Age With Likelihood of Developing Symptoms and Critical Disease Among Close Contacts Exposed to Patients With Confirmed SARS-CoV-2 Infection in Italy. *JAMA Network Open*, 4(3), e211085-e211085.
- Poletti, P., Tirani, M., Cereda, D., Trentini, F., Guzzetta, G., Marziano, V., ... Melegaro, A., Merler, S. (2020). Age-specific SARS-CoV-2 infection fatality ratio and associated risk factors, Italy, February to April 2020. *Eurosurveillance*, 25(31), 2001383.
- Lazarus, J. V., Ratzan, S., Palayew, A., Billari, F. C., Binagwaho, A., Kimball, S., Melegaro, A., ... & El-Mohandes, A. (2020). COVID-SCORE: A global survey to assess public perceptions of government responses to COVID-19 (COVID-SCORE-10). *PloS one*, 15(10), e0240011.
- Guzzetta, G., Poletti, P., Ajelli, M., Trentini, F., Marziano, V., Cereda, D., Melegaro, A., Merler, S. (2020). Potential short-term outcome of an uncontrolled COVID-19 epidemic in Lombardy, Italy, February to March 2020. *Eurosurveillance*, 25(12), 2000293.
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- T Hoang, P Coletti, A Melegaro, J Wallinga, CG Grijalva, JW Edmunds. (2019). A systematic review of social contact surveys to inform transmission models of close-contact infections. *Epidemiology* 30 (5), 723-736.
- A Melegaro. (2019). Measles vaccination: no time to rest. *The Lancet Global Health* 7 (3), e282-e283.
- Trentini, F., Poletti, P., Baldacchino, F., Drago, A., Montarsi, F., Capelli, G., ... & Melegaro, A. (2018). The containment of potential outbreaks triggered by imported Chikungunya cases in Italy: a cost utility epidemiological assessment of vector control measures. *Scientific reports*, 8(1), 1-9.
- Toffolutti, V., McKee, M., Melegaro, A., Ricciardi, W., & Stuckler, D. (2019). Austerity, measles and mandatory vaccination: cross-regional analysis of vaccination in Italy 2000–14. *European journal of public health*, 29(1), 123-127.
- Melegaro, A., Marziano, V., Del Fava, E., Poletti, P., Tirani, M., Rizzo, C., & Merler, S. (2018). The impact of demographic changes, exogenous boosting and new vaccination policies on varicella and herpes zoster in Italy: a modelling and cost-effectiveness study. *BMC medicine*, 16(1), 1-13.
- Williams, J. R., Manfredi, P., & Melegaro, A. (2018). The potential impact of the demographic transition in the Senegal-Gambia region of sub-Saharan Africa on the burden of infectious disease and its potential synergies with control programmes: the case of hepatitis B. *BMC medicine*, 16(1), 1-13.

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- Guzzetta G, Trentini F, Poletti P, Baldacchino F, Montarsi F, Capelli G, Rizzoli A.P., Rosà R, Merler S, Melegaro A. (2017). Effectiveness and economic assessment of routine larviciding for prevention of chikungunya and dengue in temperate urban settings in Europe. *PLoS Neglected Tropical Diseases*, 11 (9), e0005918
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- Del Fava E, Piccarreta R, Gregson S, Melegaro A. (2016). Transition to Parenthood and HIV Infection in Rural Zimbabwe. *PLoS One*, Sep 29;11(9):e0163730. doi: 10.1371/journal.pone.0163730.
- Poletti P, Merler S, Manfredi P, Ajelli, Nokes J, Melegaro A. (2015). Evaluating vaccination strategies for reducing infant respiratory syncytial virus infection in low-income settings. *BMC Medicine*, Mar 10;13:49
- Tirani M, Mereaglia M, Melegaro A. (2015). Health and economic outcomes of introducing the new MenB vaccine (Bexsero®) into the Italian routine infant immunisation programme. *PLoS One*, Apr 13;10(4):e0123383
- González-Lorenzo M, Piatti, A, Coppola, L, Gramegna, M, Demicheli, V, Melegaro, A, & Moja, L. (2015). Conceptual frameworks and key dimensions to support coverage decisions for vaccines. *Vaccine*, Feb 25;33(9):1206-17.
- Santermans, E, Goeyvaerts, N, Melegaro, A, Edmunds, WJ, Faes, C, Aerts, M, & Hens, N. (2015). The social contact hypothesis under the assumption of endemic equilibrium: elucidating the transmission potential of VZV in Europe. *Epidemics*, Jun;11:14-23.
- Ajelli M, Poletti P, Melegaro A, Merler S. (2014) Estimating influenza transmission in different social contexts. *Scientific Reports*, 4, 7218 (doi:10.1038/srep07218).
- De Cao E., Zagheni E., Manfredi P., Melegaro A. (2014) The relative importance of frequency of contacts and time of exposure for the spread of directly transmitted infections. *Biostatistics*, Jul;15(3):470-83.
- De Cao E., Melegaro A, Klok R, Postma M. (2014) Optimising Assessments of the Epidemiological Impact in the Netherlands of Paediatric Immunisation With 13-valent Pneumococcal Conjugate Vaccine Using Dynamic Transmission Modelling, *PLoS One*, Apr 2;9(4):e89415.
- Compagni A., Melegaro A. Tarricone R. (2013) Genetic screening for the predisposition to venous thromboembolism: a cost-utility analysis of clinical practice in the Italian healthcare system. *Value in Health*, Sep-Oct; 16(6):909-21.
- Poletti P, Melegaro A, Ajelli M, Del Fava E, Guzzetta G, Faustini L, Scalia Tomba G, Lopalco P, Rizzo C, Merler S, Manfredi P. (2013) Perspectives on the impact of varicella immunization on herpes zoster. A model-based evaluation from three European countries. *PLoS One*, Apr 17;8(4): e60732.
- Mereaglia M, Ferrara L, Melegaro A, Demicheli V. (2013) Parent "cocoon" immunization to prevent pertussis-related hospitalization in infants: the case of Piemonte in Italy. *Vaccine*, Feb 6;31(8):1135-7.
- Van Hoek AJ, Melegaro A, Gay N, Billeke J, Edmunds WJ. (2012) The cost-effectiveness of varicella and combined varicella and Herpes zoster vaccination programmes in the United Kingdom. *Vaccine*, Feb 1;30(6):1225-34.
- Choi YH, Jit M, Gay N, Andrews N, Waight PA, Melegaro A, George R, Miller E. (2011) 7-valent pneumococcal conjugate vaccination in England and Wales: is it still beneficial despite high levels of serotype replacement? *PLoS One*, 6(10):e26190. Epub 2011 Oct 14.
- Melegaro, A; Jit, M; Gay, N; Zagheni, E; Edmunds, WJ. (2011) What types of contacts are important for the spread of infections? Using contact survey data to explore European mixing patterns. *Epidemics*, 3, 143:151

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- House T, Baguelin M, Van Hoek AJ, White PJ, Sadique Z, Eames K, Read JM, Hens N, Melegaro A, Edmunds WJ, Keeling MJ. (2011) Modelling the impact of local reactive school closures on critical care provision during an influenza pandemic. *Proceedings of the Royal Society of London B: Biological Sciences*, 278, 1719,2753-2760,2011,The Royal Society.
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## BOOK

Pandemie d'Italia. Dalla peste nera all'influenza suina: l'impatto sulla società. G. Alfani, **A. Melegaro**. Con prefazione di F. Billari. Ed. EGEA 2010.

## SELECTION OF PRESENTATIONS AT INTERNATIONAL CONFERENCES

- The role of peer influence in shaping individuals' vaccine attitude. Population American Association (PAA) Annual Meeting, Columbus Ohio, April 2024.
- Unraveling timing and determinants of childhood vaccination: the Italian case. Population American Association (PAA) Annual Meeting, Columbus Ohio, April 2024.
- Investigating homophily in the COVID-19 pandemic through longitudinal contact mixing data. 9th EPIDEMICS Conference, December 2023
- Personal risk or societal benefit? Investigating adults' support for COVID-19 childhood vaccination. 9th EPIDEMICS Conference, December 2023
- Pro, Anti, or Neutral? The unfolding of Covid-19 Vaccine Hesitancy on Reddit. 9th EPIDEMICS Conference, December 2023
- Investigating the relationship between interventions, contact patterns, and SARS-CoV-2 transmissibility (with Trentini F., Balbo N.). Population American Association (PAA) Annual Meeting, Atlanta, April 2022.
- Healthcare strain and intensive care during the COVID-19 outbreak in the Lombardy region: a retrospective observational study on 43,538 hospitalized patients (with Trentini F. et al). 8th EPIDEMICS Conference, December 2021
- Investigating the relationship between interventions, contact patterns, and SARS-CoV-2 transmissibility (with Trentini F. et al). 8th EPIDEMICS Conference, December 2021
- Modeling the interplay between demography, social contact patterns, and SARS-CoV-2 transmission in the South West Shewa Zone of Oromia Region, Ethiopia (with Trentini F. et al). 8th EPIDEMICS Conference, December 2021
- Rapid review of social contact patterns during the COVID-19 pandemic (with Liu et al.). EPIDEMICS Conference, December 2021
- The role of the demographic structure and patterns of social contacts in an uncontrolled SARS-CoV-2 pandemic (with Manna et al.). 8th EPIDEMICS Conference, December 2021
- The Role of Data in the COVID-19 Pandemic. Leopoldina National Academy, July 2021, invited talk
- The history of pandemics. Bruno Kessler Foundation, December 2021, invited talk
- The role of demographic structure and social contact patterns in an uncontrolled SARS-CoV-2 pandemic. Conference of Complex System (CCS) October 2021, invited talk
- Expectations and forecast for the post pandemic era organized. Brera Academy, May 2021, invited talk
- Vaccine hesitancy in the Italian context. CNR - Centro interdipartimentale per l'etica e l'integrità nella ricerca e responsabile vaccine hesitancy forum, May 2021 invited talk
- Data Analytics and the Battle Against the Pandemic. Mathematical models to understand SARS-CoV-2 transmission. CIVICA Public Lectures Tours d'Europe Series 2021, The European University of Social Sciences, invited talk
- The role of demographic structure and social contact patterns in an uncontrolled SARS-CoV-2 pandemic (with Billari F, Balbo N., Manna A.). Population American Association (PAA) Annual Meeting, 2021.
- The Effects of Compulsory Vaccination Law and COVID-19 on Vaccine Hesitancy: Analyzing Digital Traces From Italy (with Manna A. Toffolutti V.). Population American Association (PAA) Annual Meeting, 2021.
- Heterogeneities in Social Mixing Patterns in Rural and Urban Areas of Kenya (with Del Fava E., Manfredi P). Population American Association (PAA) Annual Meeting, 2021.
- Individual mixing patterns relevant for infectious diseases transmission in different social contexts in Sub-Saharan Africa. 6th EPIDEMICS Conference, Sitges, Spain (December 2017)
- A dynamic cost-effectiveness analysis of varicella and herpes zoster vaccination programs in Italy. 6th EPIDEMICS Conference, Sitges, Spain (December 2017)
- Individual mixing patterns relevant for infectious diseases transmission in different social contexts in Sub-Saharan Africa. IUSSP Conference, Cape Town, South Africa (October 2017)

- A dynamic cost-effectiveness analysis of varicella and herpes zoster vaccination programs in Italy. iHEA Conference, Boston, United States (2017)
- Measles immunity gaps and the progress towards elimination: a multi-country modelling analysis. Population American Association (PAA) Annual Meeting, Chicago, United States (2017)
- Investigating Social Contact Structures and Time Use Patterns in Sub-Saharan Africa. Invited talk. SIMID Workshop, Antwerp, Belgium (2017)
- Modelling Infectious Diseases in Complex, Demographically Unstable Populations. Invited talk. Science Crossroads (2016), Torino, Italy
- Local demographic conditions and the progress towards measles elimination. Conference on Complex System, Contagion Satellite Session (2016)
- Investigating Social Contact Structures and Time Use Patterns in the Manicaland Province of Zimbabwe. 4th EPIDEMICS Conference, Clearwater Beach, Florida (2015)
- Local demographic conditions and progress towards measles elimination. 4th EPIDEMICS Conference, Clearwater Beach, Florida (2015)
- RSV transmission patterns in Kenya: a tool for public policy and vaccinology. European Conference on Complex Systems, Lucca, Italy (2014)
- Investigating Social Contact Structures and Time Use in Zimbabwe. International Biometrics Conference, Florence, Italy (2014)
- The Impact of Current Demographic Trends on the Dynamics and Control of Vaccine Preventable Childhood Infection. Biological Complexity: Past Commitments and Future Challenges, Arcidosso, Italy (2013).
- The Impact of Current Demographic Trends on Childhood Infectious Diseases. Population Association of America, Annual Meeting, New Orleans (LA) (2013).
- The Impact of Demographic Change on Infectious Diseases Transmission and Control in Middle/Low Income Countries (The DECIDE Project) Alpine Population Conference (AlpPop), La Thuile (AO), Italy (2013).
- Modelling varicella and zoster in Europe: can we cope with the current decision paralysis on mass immunisation? Epidemics-3, Third International Conference on Infectious Diseases Dynamics, Boston, MA, USA, (2011).
- The role of social contacts on children's health: Statistical inference on infectious disease data, Population Association of America Conference, Washington (2011).
- Using a mathematical model to evaluate the impact of different PCV schedules: Preliminary results from the West Africa epidemiological scenario, Strategic Advisory group of Experts, WHO, Geneva, Switzerland, (2010)
- Mathematical modelling for health economic evaluations, SISMEC National Conference, Padua, Italy (2009).
- The cost-effectiveness of pneumococcal vaccination programme, WHO Global Meeting on Implementing New and Under-Utilized Vaccines (NUVI), Montreux, Switzerland (2009).
- The development of an evidence based platform to assist countries with the decision making on introduction of new vaccines, WHO and MoPH Thailand Collaborative Consultation Meeting, Bangkok (2009).
- The importance of social mixing in the economic evaluation of vaccination programs. The case of varicella vaccination, 7th European Conference on Health Economics, Rome, Italy (2008).
- Estimating age-specific transmission rates for infectious diseases: fitting a survey of contact patterns to seroprevalence data for VZV and parvovirus B19, 15th European Conference on Public Health (EUPHA), Helsinki, Finland (2007).
- Economic evaluation analysis for developing countries setting, GAVI Steering Committee, London (2005).
- Estimating the biological parameters of pneumococcal carriage in households, 4th International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD-4), Helsinki, Finland (2004).
- Effectiveness and cost-effectiveness of pneumococcal vaccine for invasive disease in the elderly, 3th International Symposium on Pneumococci and Pneumococcal Diseases (ISPPD-3), Anchorage, Alaska (2002).



## **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

- 2010 – 2024 Bocconi University, Milan, Italy: Supervision of: undergraduates (40), graduates (40), PhD (3), post-doc (12), Department of Social and Political Science and Dondena Centre for Research in Social Dynamics and Public Policy
- 2000 – 2010 Health Protection Agency, London, UK: Supervision of PhD (5) and post-doc (3)

## **REVIEWING ACTIVITIES**

- 2019 – Member of the Editorial Board of *Scientific Reports Journal*, Springer Nature Limited
- *Ad hoc reviewer for (selected)*: The Lancet, The Paediatric Infectious Disease Journal, American Journal of Epidemiology, Vaccine, European Journal of Epidemiology, Epidemiology and Infection, Plos Medicine, Plos One, BMC Infectious Diseases, BMC Public Health, Biometrics, Proceedings of the Royal Society B, BMC Medicine, eLife, Journal of Infection, Epidemiology.
- *Review panel member for Scientific Grants*: Wellcome Trust: Senior Research Fellowship in Clinical Science; Netherlands Public Health Organisation: Health Research and Development, Infectious Disease Control Programme; Conseil de Paris: Emergence(s).

## **ORGANISATION OF SCIENTIFIC MEETINGS**

- 2024 Workshop IMMUNE Covid Crisis Lab – Epidemiological modelling with human behaviours, Bocconi University, Milan, Italy
- 2020 Workshop SELECT - Unfolding the SEcrets of LongEvity: Current Trends and future prospects, 50 participants, Bocconi University, Milan, Italy
- 2019 POPDAYS - Giornate di Studio sulla Popolazione 13th Edition, 250 participants, Bocconi University, Milan, Italy
- 2012 – 2017 DECIDE Workshops (ERC StG no. 283955) - The Impact of DEMographic Changes on Infectious DisEase Transmission and Control in Sub-saharan African countries, 30 participants, Bocconi University, Milan, Italy
- 2014 Dondena Seminar Series - Dondena Centre for Research on Social Dynamics and Public Policy, Bocconi University, Milan, Italy

## **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- 2018 – Member, Population Association of America
- 2017 – Member, SIS, Italian Society of Statistics
- 2016 – Member, AIES, Italian Association for Health Economics

## **CAREER BREAKS**

- December 2005 - September 2006: First son, Pietro, maternity leave for 10 months
- January 2008 - October 2008: Second son, Francesco, maternity leave for 10 months

**Milan, 11/9/2025**