Chiara Celine Brück

c.bruck@erasmusmc.nl

EDUCATION & APPOINTMENTS

Postdoctoral researcher, *Erasmus MC, Erasmus Medical Center Rotterdam, Netherlands*　2024 – present
- Performing research as part of the colorectal cancer screening and dementia research groups, using microsimulation modeling.
- Contributing to educational activities of the research group.
- Daily supervisor of two PhD students and one Master student.
- Funding acquisition.

PhD Candidate, *Erasmus MC, Erasmus Medical Center Rotterdam, Netherlands*　2019 – 2024
- Thesis: Unraveling the Future Burden of Dementia: Development and Application of a Microsimulation Model
- Promotors: Dr. Inge de Kok & Prof. dr. Arfan Ikram
- Defense: Feb 12th, 2025

Visiting Scholar, *Harvard T.H. Chan School of Public Health, Boston, MA, United States*　2022

MSc Health Sciences, *Netherlands Institute for Health Sciences, Rotterdam, Netherlands*　2020 – 2023

MSc Econometrics and Operations Research, *Maastricht University, Netherlands*　2018 – 2019

BSc Econometrics and Operations Research, *Maastricht University, Netherlands*　2015 – 2018

PUBLICATIONS

- **Brück CC**, de Nijs K, Ikram MA, Wolters FJ, de Kok IMCM (in press). The impact of modifiable risk factor reduction on future dementia burden: a microsimulation modeling study. European Journal of Epidemiology.
- **Brück CC**, Mooldijk SS, Kuiper LM, Sambou ML, Licher S, Mattace-Raso F, Wolters FJ (2025). Time until nursing home admission and death in persons with dementia: A systematic review and meta-analysis. BMJ. https://doi.org/10.1136/bmj-2024-080636
- **Brück CC**, Mwangi LW, van Wifferen F, Hsu L, Thomas M, Peters U (2025). Risk-based screening for early detection of colorectal cancer: an overview. Best Practice & Research Clinical Gastroenterology. https://doi.org/10.1016/j.bpg.2025.102014
- Handels R, [...], **Brück CC**, [...] et al. (2025). IPECAD Modeling Workshop 2023 Cross Comparison Challenge on Cost-Effectiveness Models in Alzheimer's Disease. *Value in Health*, *28*(4), 497-510. https://doi.org/10.1016/j.jval.2024.09.006
- **Brück CC**, Wolters FJ, Ikram MA, de Kok IMCM (2023). Projections of costs and quality adjusted life years lost due to dementia from 2020-2050: a population-based microsimulation study. Alzheimer's & Dementia. https://doi.org/10.1002/alz.13019
- **Brück CC**, Wolters FJ, Ikram MA, de Kok IMCM (2022). Projected prevalence and incidence of dementia accounting for secular trends and birth cohort effects: a population-based microsimulation study. *European Journal of Epidemiology*, 37, 807–814. https://doi.org/10.1007/s10654-022-00878-1
- Handels R, [...], **Brück CC**, [...] et al. (2022). Cost-effectiveness Models for Alzheimer's disease and related dementias: IPECAD Modelling Workshop Cross Comparison Challenge. *Alzheimer's & Dementia*. https://doi.org/10.1002/alz.12811
- **Brück CC**, Wolters FJ, Ikram MA, de Kok IMCM (2021). Heterogeneity in Reports of Dementia Disease Duration and Severity: A Review of the Literature. *Journal of Alzheimer's disease*: JAD, 84(4), 1515–1522. https://doi.org/10.3233/JAD-210544

GRANTS & AWARDS

Conference Fellowship, Alzheimer's Association International Conference, Alzheimer's Association	2025
Travel grant for international conference attendance, Alzheimer Nederland, €750	2022, 2024
Nominated for Best Oral Presentation at WEON Conference, Rotterdam, Netherlands	2023
Grant "InterAct Beurs" for research visit, Alzheimer Nederland, €8,400	2022
Nominated for Best 2022 Junior Publication at Dept of Public Health, Erasmus MC, Netherlands	2022

TEACHING & SUPERVISION

Supervision of a master student, Erasmus MC, Netherlands	2025 - present
Supervision of two PhD students, Erasmus MC, Netherlands	2023 - present
Course coordinator and lecturer, FEB23024: Econometrics and OR in Health Care, Erasmus University Rotterdam, Netherlands	2023 - present
Lecturer, NIHES EL022: Planning and evaluation of screening, Erasmus MC, Netherlands	2021 - present
Supervision Community Project, third year Medicine students, Erasmus MC, Netherlands	2021, 2024
Teaching Assistant, RDS 280: Decision Analysis for Health and Medical Practices, Harvard T.H. Chan School of Public Health, Boston, MA, US	2022

TECHNICAL SKILLS & LANGUAGES

Software	Python, R, Shiny
Tools	GitLab, LaTeX, Microsoft Office
Languages	German (native), English (fluent, Cambridge C1, 2014), Dutch (conversational, Erasmus University B1.2, 2020), Italian (conversational, CILS B2, 2017)

PRESENTATIONS AND CONFERENCES

2025
- International Pharmaco-Economic Collaboration on Alzheimer's Disease (IPECAD) Confernce, Glasgow, Scotland (workshop) *"Betrouwbare toekomstmodellen voor dementie in de populatie"*
- Nationaal Dementie Congres, Nieuwegein, Netherlands (workshop) *"Betrouwbare toekomstmodellen voor dementie in de populatie"*
- Alzheimer's Association International Conference (AAIC), Toronto, Canada (oral) *"Modeling amyloid therapy potential on a population level: An adaptation of the MISCAN-Dementia model"*

2024
- Alzheimer's Association International Conference (AAIC), Philadelphia, PA, USA (poster) *"Survival and time till nursing home admission in persons with dementia: a systematic review and meta-analysis"*
- Invited speaker at seminar series, London School of Hygiene & Tropical Medicine (oral) *"From Individuals to Populations: How Microsimulation Bridges the Gap in Health Research"*

2023
- Alzheimer Europe Conference (AEC), Helsinki, Finland (oral) *"Can case managers curb the financial burden of dementia in the future?"*
- Alzheimer's Association International Conference (AAIC), Amsterdam, Netherlands (poster) *"The impact of modifiable risk factor reduction on future dementia burden: a microsimulation modeling study"*
- WEON conference, Rotterdam, The Netherlands (oral) *"The Impact of Modifiable Risk Factor Reduction on the Future Dementia Burden: A Microsimulation Modeling Study"*

2022
- Society for Medical Decision Making Conference (SMDM), Seattle, WA, USA (poster) *"Decision making on dementia primary prevention: The impact of modifiable risk factor reductions"*
- Alzheimer's Association International Conference (AAIC), San Diego, CA, USA (oral) *"Projected costs of dementia and quality adjusted life years lost between 2020-2050: a population-based microsimulation study"*

2021
- Alzheimer Europe Conference (AEC), online (oral) *"Projections of Costs and quality adjusted life years lost due to dementia, 2020-2050: a population-based microsimulation study"*
- Alzheimer's Association International Conference (AAIC), online (oral) *"How do dementia risk differences between birth cohorts affect future incidence predictions: A microsimulation study"*

2020
- Alzheimer Europe Conference (AEC), online (poster) *"The development of a microsimulation model to predict the future burden of dementia"*
- Alzheimer's Association International Conference (AAIC), online (poster) *"The development of a microsimulation model to predict the future burden of dementia and effects of public health interventions"*

REVIEWER EXPERIENCE

Neurology, European Journal of Epidemiology, Alzheimer's & Dementia: Translational Research & Clinical Interventions, Journal of Alzheimer's Disease, BMC Public Health, BMC Neurology, BMC Medicine, GeroScience

COMMITTEES

Programming group for maintenance and improvement of MISCAN modeling framework "Core Team", Department of Public Health, Erasmus MC	2021 - present
Academic Center of Excellence (ACE) – Alzheimer's working group, Erasmus MC	2021 - present
ISTAART member, Alzheimer's Association, Professional Interest Areas: Health Policy, Design and Data Analytics, Reserve, Resilience, and Protective Factors, Nonpharmacological Interventions, PIA to Elevate Early Career Researchers, Alliance of Women Alzheimer's Researchers	2021 - present
Chair of the Junior Representative Committee, Department of Public Health, Erasmus MC	2020 - 2022