

Pharmacoeconomics - Open

Prevalence and Cost of Care for Parkinson's disease in Luxembourg: An analysis of national healthcare insurance data

Susanne Schmitz PhD¹, Michel Vaillant PhD¹, Christel Renoux MD PhD^{2,3}, Robert L. Konsbruck PhD⁴, Pierre Hertz MD⁴, Magali Perquin PhD⁵, Lukas Pavelka MD^{6,7}, Rejko Krüger MD^{7,8,9}, Laetitia Huiart MD PhD⁵

¹ Competence Center for Methodology and Statistics, Department of Population Health, Luxembourg Institute of Health, Strassen, Luxembourg

² Centre for Clinical Epidemiology, Lady Davis Institute for Medical Research, Jewish General Hospital, Montreal, Canada

³ Department of Neurology and Neurosurgery, McGill University, Montreal, Canada

⁴ Caisse Nationale de Santé, Luxembourg, Luxembourg

⁵ Department of Population Health, Luxembourg Institute of Health, Strassen, Luxembourg

⁶ Clinical and Experimental Neuroscience, Luxembourg Centre for Systems Biomedicine (LCSB), University of Luxembourg, Esch-sur-Alzette, Luxembourg

⁷ Parkinson's Research Clinic, Centre Hospitalier de Luxembourg (CHL), Luxembourg, Luxembourg

⁸ Director of Transversal Translational Medicine, Luxembourg Institute of Health, Strassen, Luxembourg

⁹ Luxembourg Centre for Systems Biomedicine, Translational Neuroscience, University of Luxembourg, Luxembourg

Funding sources for study: The study received funding from the Fonds National de Recherche (FNR) Luxembourg within the context of the National Centre of Excellence in Research in Parkinson's disease (NCER-PD) and within the PEARL Excellence Programme [FNR/P13/6682797] to RK.

Conflict of Interest/Competing interests:

SS received funding from the National Centre of Excellence in Research in Parkinson's disease (NCER-PD) to conduct the work presented in this article.

CR is a recipient of a Chercheur-Boursier Salary Award from the Fonds de recherche du Québec – Santé.

RK serves as Editorial Board Member of the European Journal of Clinical Investigation, the Journal of Parkinsonism and Related Disorders and the Journal of Neural Transmission. RK has received research grants from Fonds National de Recherche de Luxembourg (FNR) as Coordinator of the National Centre for Excellence in Research on Parkinson's disease (NCER-PD), Coordinator of the Study on COVID-19 National survey for assessing Viral spread by Non-affected Carriers (CON-VINCE). RK received as well as speaker's honoraria and/or travel grants from Abbvie, Zambon and Medtronic and he participated as PI or site-PI for industry sponsored clinical trials without receiving honoraria.

RLK, PH, MP, LP, MV and LH have nothing to declare.

Supplementary File 1

	Long-Term Care	Hospital	Medication / Medical Devices	Clinician	Specialist Services	Nurses	Laboratory Tests	Other
2008	€14,452 < 2.2e-16	€2,396 2.506e-05	€1,329 < 2.2e-16	€485 1.076e-08	€810 < 2.2e-16	€752 1.638e-14	€47 9.342e-07	€311 0.0173
2009	€16,391 < 2.2e-16	€2,965 1.037e-07	€1,236 < 2.2e-16	€534 2.056e-11	€867 < 2.2e-16	€788 2.194e-11	€29 0.0003916	€641 8.281e-07
2010	€17,217 < 2.2e-16	€3,550 1.551e-10	€1,307 < 2.2e-16	€691 1.292e-15	€954 < 2.2e-16	€838 6.722e-14	€38 1.698e-06	€482 0.0003821
2011	€14,504 < 2.2e-16	€2,100 7.348e-06	€1,069 < 2.2e-16	€474 7.786e-11	€804 < 2.2e-16	€644 3.91e-14	€36 1.725e-06	€700 1.487e-06
2012	€15,359 < 2.2e-16	€2,269 4.431e-06	€1,040 < 2.2e-16	€479 3.127e-12	€838 < 2.2e-16	€712 1.281e-14	€52 2.178e-10	€807 1.364e-09
2013	€15,575 < 2.2e-16	€2,555 2.152e-09	€964 < 2.2e-16	€561 < 2.2e-16	€904 < 2.2e-16	€638 5.898e-14	€40 1.124e-06	€1,103 9.998e-07
2014	€16,082 < 2.2e-16	€2,894 1.931e-10	€1,023 < 2.2e-16	€594 1.069e-14	€1,014 < 2.2e-16	€623 3.9e-10	€35 1.147e-05	€585 2.738e-07
2015	€15,768 < 2.2e-16	€2,464 1.773e-07	€931 < 2.2e-16	€517 1.062e-10	€986 < 2.2e-16	€827 8.32e-15	€28 6.543e-05	€550 0.0001057
2016	€15,796 < 2.2e-16	€2,881 5.605e-09	€984 < 2.2e-16	€642 1.162e-14	€1,161 < 2.2e-16	€789 7.063e-16	€37 5.387e-08	€574 4.325e-08

Table 1: Cost differences per category and year: Mean difference and p-value (derived from t-test). Cells contain mean cost differences (row 1) and p-values of the difference (row 2).