

Current positions

Associate Professor at the Interuniversity Institute for Biostatistics and statistical Bioinformatics, Hasselt University, Diepenbeek, Belgium

Associate Professor and Holder of the Scientific Chair in Evidence-based Vaccinology, Centre for Health Economics Research and Modeling Infectious Diseases, Centre for the Evaluation of Vaccination, Vaccine & Infectious Disease Institute (WHO Collaborating Centre) and Unit of Epidemiology and Social Medicine University of Antwerp, Antwerp, Belgium

Member of the Young Academy of Belgium: 'Jonge Academie'

Email: niel.hens@uhasselt.be/niel.hens@uantwerp.be; Phone (mobile): +32496749191;

Address: Hasselt University, Agoralaan 1, 3590 Diepenbeek, Belgium

Degrees

Bachelor in Math. 1997; Master in Math. 1999; Doctor in Science, Math. 2005; MSc Biostatistics 2005

PhD (co-)supervisor

Completed PhD's (12): 2011: Nele Goeyvaerts, An Creemers, 2012: Girma Minalu Ayele, 2014: Amparo Castro Sanchez, Amin Azmon, 2015: Benson Ogunjimi, Lander Willem, Steven Abrams, Yannick Vandendijck, Guillaume Béraud, 2016: Adriaan Blommaert, Robin Bruyndonckx, Eva Santermans,

Current PhD's (14): Kim Van Kerckhove, Levicatus Mugenyi, Thomas Kovac, Thiago Gentil Ramires, Tapiwa Ganyani, Thao Mai Phuong Tran, Nina Keersmaekers, Toon Braeye, Adelino Juga, Osvaldo Loquiha, Zoë Pieters, Thang Van Hoang, Andrea Torneri, Achilleas Tsoumanis

Grants

(selected out of 25:)

ERC consolidator grant TransMID, 2016-2020: (1,6m euro) role: PI

VLIR-ICP grant, 2017-2021: (723,000 euro) role: PI

FWO postdoctoral fellow: Dr. Wim Delva (270,000 euro), role: promotor

Marie Curie fellowship: Dr. Benny Borremans (258,530 euro), role: promotor together with Jamie Lloyd Smith (UCLA)

BOF/ID The development and the optimization of stochastic individual-based simulation models by means of parallel multicore computing: 2011-2013 (PhD position - 180,000 euro)

BOF: Quantification of varicella-zoster virus boosting mechanisms with their public health implication for vaccination: 2013-2015 (143,000 euro)

Research

Main research interest: Developing mathematical and statistical models of infectious disease transmission.

140 A1 journal articles , 1 monograph as lead author, 2 book chapters

h-index: 22; citations: 2251 (WoK)

selected publications

- Andraud, M., Lejeune, O., Muzoro, J., Beutels, P. and Hens, N.. (2012) ‘Living on Three Time Scales: the Dynamics of Plasma Cell and Antibody Populations Illustrated for Hepatitis A Virus.’ *PLoS Computational Biology*. March; 8(3): e1002418.
- Beauclair, R., Meng. F., Deprez, N., Temmerman, M., Welte, A., Hens, N., Delva, W. (2013) Evaluating Audio Computer Assisted Self-Interviews in Urban South African Communities: Evidence for Good Suitability and Reduced Social Desirability Bias of a Cross-sectional Survey on Sexual Behaviour. *BMC Medical Research Methodology*. 13:11 DOI: 10.1186/1471-2288-13-11.
- Blommaert, A., Coenen, S., Gielen, B., Goossens, H., Hens, N., Beutels, P. (2013) Patient and prescriber determinants for the choice between amoxicillin and broader spectrum antibiotics: a nationwide prescription level analysis. *J. Antimicrob. Chemother.* (2013) 68 (10): 2383-2392 doi:10.1093/jac/dkt170. IF: 5.338 (2012)
- Goeyvaerts, N., Willem, L., Van Kerckhove, K., Vandendijck, Y., Hanquet, G., Beutels, P., Hens, N. (2015) Estimating dynamic transmission model parameters for seasonal influenza by fitting to age and season-specific influenza-like illness incidence. *Epidemics*. 13, 1-9 doi:10.1016/j.epidem.2015.04.002
- Grijalva, C., Goeyvaerts, N., Verastegui, H., Edwards, K.M., Gil, A.I., Lanata, C.F., Hens, N. (2015) A household-based study of contact networks relevant for the spread of infectious diseases in the highlands of Peru *PLoS One*, 10, 3, e0118457
- Hens, N., Abrams, S., Santermans, E., Theeten, H., Goeyvaerts, N., Lernout, T., Leuridan, E., Van Kerckhove, K., Goossens, H., Van Damme, P., Beutels, P. Assessing the risk of measles resurgence in a highly vaccinated population: Belgium anno 2013. *Euro Surveill.* 2015;20(1):pii=20998. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20998>
- Hens, N., Calatayud, L., Kurkela, S., Tamm, T. and Wallinga, J. (2012) “Robust reconstruction and analysis of outbreak data: influenza A(H1N1)v transmission in a school-based population” *American Journal of Epidemiology* 176(3): 196-203.
- Horby, P., Thai, P.Q., Hens, N., Yen, N.T.T., Mai, L.Q., Thoang, D.D., Nguyen M.L., Huong, N.T.; Alexander, N., Edmunds, W.J., Duong, T.N., Fox, A., Hien, N.T. (2011) Social contact patterns in Vietnam and implications for the control of infectious diseases. *PLoS One* 6(2): e16965.
- Mossong, J., Hens, N., Jit, M., Beutels, P., Auranen, K., Mikolajczyk, R. Massari, M., Scalia Tomba, G.S., Wallinga, J., Sadkowska-Todys, M., Rosinska, M., Edmunds, J.W. (2008) Social contacts and mixing patterns relevant to the spread of infectious diseases. *PLoS Med* 5(3) e74. doi:10.1371/journal.pmed.0050074
- Ogunjimi, B., Willem, L., Beutels, P. and Hens, N. (2015) Integrating between-host transmission and within-host immunity to analyze the impact of varicella vaccination on zoster. *eLife*;4:e07116. DOI: 10.7554/eLife.07116
- Willem, L., Stijven, S., Vladislavleva, E., Broeckhove, J., Beutels, P. and Hens, N. (2014) Active learning to understand infectious disease models and improve policy making. *PLoS Computational Biology*. 10(4): e1003563.
- Santermans, E., Goeyvaerts, N., Melegaro, A., Edmunds, J.W., Faes, C., Aerts, M., Beutels, P., Hens, N. (2015) The social contact hypothesis under the assumption of endemic equilibrium: elucidating the transmission potential of VZV in Europe. *Epidemics*, 11, 14-23. doi:10.1016/j.epidem.2014.12.005