

Curriculum Vitae – Hanna Gyllensten

Academic achievements

2020	Associate professor (Health care sciences), Institute of Health and Care Sciences, GU
2014	PhD (Medicine), Institute of Medicine, GU
2004	Master of Science in Pharmacy, Registered pharmacist (Apotekarlegitimation)

Postdoc positions

2015-2018	Postdoc, Division of Insurance Medicine, Dept. Clinical Neuroscience, Karolinska Institutet
2015-2017	Postdoc, GPCC - University of Gothenburg Centre for Person-centred Care, Institute of Health and Care Sciences, University of Gothenburg
2014	Postdoc researcher at the Nordic school of public health NHV

Doctoral thesis

Title	Economic impact of drug-related morbidity in Sweden – Estimated using experts' opinion, medical records and self-reports. http://hdl.handle.net/2077/35203
Supervisors	Ass Prof Anders Carlsten, Prof Clas Rehnberg, PhD Anna Jönsson
Subject	Public Health, Global Health, Social Medicine and Epidemiology (30302)
Defense	2014-05-23

Other academic merits

Since 2021	Steering committee member, University of Gothenburg Centre for Person-centred Care (GPCC). Additional role in the research centre: <ul style="list-style-type: none">• Since 2022 leader of one of the three strategic focus areas in which the research conducted by the centre is sorted into, the area focusing on Development, adaptation and evaluation of person-centred care.• Since 2021 representative for GPCC in the International Community of Practice for Person-centred Practice (PcP ICoP).
2018-2020	Steering committee member in the section of my Union that organizes pharmacists working in the public sector.
2018-2022	Examination committee member in four half-time seminars at GU, at the Institute for Medicine and Odontology, respectively. <ul style="list-style-type: none">• 42 published original research articles and 5 published systematic reviews.• Co-applicant responsible for the health economics tracks in grant applications receiving more than SEK 30 million from e.g., FORTE, VR, and regional funding.• Project coordinator for a research project funded by GPCC: <i>Core outcomes for (economic) evaluation of person-centred care</i> (https://www.gu.se/en/research/health-economic-aspects-of-person-centred-care)• Project coordinator for a utilization project funded by GPCC: <i>Learnings from five controlled trials of person-centred care</i> (https://www.gu.se/en/research/learnings-from-five-controlled-trials-of-person-centred-care)

Current positions

- Since 2017 Senior lecturer, Institute of Health and Care Sciences, University of Gothenburg
Since 2022 Affiliated researcher, Institute of Environmental Medicine, Karolinska Institutet

Previous positions

- 2017-2022 Avocation as health economist at IQVIA, a contract research organization
2019-2020 Affiliated researcher, Division of Insurance Medicine, Dept. Clinical Neuroscience, Karolinska Institutet
2015-2018 Postdoc, Division of Insurance Medicine, Dept. Clinical Neuroscience, Karolinska Institutet
2015-2017 Postdoc, GPCC - University of Gothenburg Centre for Person-centred Care, Institute of Health and Care Sciences, University of Gothenburg
2008-2014 Doctoral student and postdoc researcher at the Nordic school of public health NHV
2006-2008 Clinical pharmacist in hospital
2006-2008 Program coordinator of the Pharmacy programme, University of Gothenburg
2004-2006 Registered pharmacist in community pharmacy

List of graduated PhD students

Defense	Doctoral student and project (main supervisor in bold)	University
2020-02-28 PhD	Laura Pirhonen: <i>Health-economic evaluations of person-centred care.</i> http://hdl.handle.net/2077/62219 Supervisors: Bolin K , Hansson Olofsson E, Gyllensten H.	GU
2022-02-18 PhD	Markus Saarijärvi: <i>The STEPSTONES project: Process of care and economic evaluation of a transition program to empower adolescents with chronic conditions in the transition to adulthood.</i> http://hdl.handle.net/2077/69806 Supervisors: Bratt E, Moons P* , Wallin L, Gillesten H.	GU
2022-02-28 Lic	Karin Haby. <i>Lifestyle intervention in pregnant women with obesity.</i> http://hdl.handle.net/2077/70589 Supervisors: Premberg Å , Berg M, Gyllensten H.	GU

List of current PhD students

Start/planned defense	Doctoral student and project (main supervisor in bold)	University
2020 / 2023	Eirin Guldsten Robinson: <i>Health economic evaluation of pharmacist interventions in primary and hospital care.</i> Supervisors: Granås A , Gyllensten H, Bergmo T, Garcia BH.	University of Oslo
2019 / 2025	Salma Pardhan: <i>Making healthcare for complex chronic conditions sustainable and affordable: Developing an internationally validated algorithm to allocate patients to the appropriate level of care.</i> Supervisors: Gyllensten H, Moons P* , Mandalenakis Z.	GU
2021 / 2023	Fitsum Teni: <i>Health-related quality of life, sickness absence and disability pension among people with multiple sclerosis.</i> Supervisors: Friberg E , Machado A, Gyllensten H, Fink K.	Karolinska Institutet
2019 / 2024	Lisa Goldkuhl: <i>Room4Birth – The effect, meaning and implementation of a personally adaptable birthing room at a hospital-based labour ward.</i> Supervisors: Berg M , Wijk H, Nilsson C, Gyllensten H.	GU
2022 / 2027	Benjamin Harvey: <i>Economic evaluation of person-centred healthcare programmes: applications in the development, implementation, and evaluation of eHealth interventions.</i> Supervisors: Gyllensten H , Öhlén J, Barenfeld E, Lindroth T.	GU
2022 / 2030	Stina Mannheimer: <i>Determinants of medication related decision-making for patients with multi-morbidity in primary health care, and outcomes of person-centred care.</i> Supervisors: Fors A, Gyllensten H , Holst A.	GU
2022 / 2030	Frida Lenér: <i>Unrecognized complications experienced by patients after bariatric surgery.</i> Supervisors: Mossberg K, Johansson M, Gyllensten H .	GU

* Double degree projects, where Philip Moons is main supervisor at KU Leuven, Belgium.

Publication list

Peer-reviewed original research publications

Part of the PhD thesis

- 4 **Gyllensten H**, Hakkarainen KM, Hägg S, Carlsten A, Petzold M, Rehnberg C, Jönsson AK. Economic impact of adverse drug events--a retrospective population-based cohort study of 4970 adults. *PLoS One*. 2014 Mar 17;9(3):e92061.
- 3 **Gyllensten H**, Rehnberg C, Jönsson AK, Petzold M, Carlsten A, Andersson Sundell K. Cost of illness of patient-reported adverse drug events: a population-based cross-sectional survey. *BMJ Open*. 2013 Jun 20;3(6).
- 2 **Gyllensten H**, Hakkarainen KM, Jönsson AK, Andersson Sundell K, Hägg S, Rehnberg C, Carlsten A. Modelling drug-related morbidity in Sweden using an expert panel of pharmacists'. *Int J Clin Pharm*. 2012 Aug;34(4):538-46.
- 1 Hakkarainen KM, Alström D, Hägg S, Carlsten A, **Gyllensten H**. Modelling drug-related morbidity in Sweden using an expert panel of physicians. *Eur J Clin Pharmacol*. 2012 Sep;68(9):1309-19.

Not included in PhD thesis

- 38 Teni FS, Machado A, Murley C, He A, Fink K, **Gyllensten H**, Glaser A, Alexanderson K, Hillert J, Friberg E. Trajectories of disease-modifying therapies and associated sickness absence and disability pension among 1923 people with multiple sclerosis in Sweden. *Mult Scler Relat Disord*. 2023 Jan;69:104456.
- 37 Goldkuhl L, **Gyllensten H**, Begley C, Nilsson C, Wijk H, Lindahl G, Uvnäs-Moberg K, Berg M. Impact of Birthing Room Design on Maternal Childbirth Experience: Results From the Room4Birth Randomized Trial. *HERD* 2023;16(1):200-218.
- 36 Robinson G, Hedna K, Hakkarainen M, **Gyllensten H**. Healthcare costs of adverse drug reactions and potentially inappropriate prescribing in older adults: a population-based study. *BMJ Open* 2022;12(9):e062589.
- 35 Goldkuhl L, **Gyllensten H**, Begley C, Wijk H, Nilsson C, Lindahl G, Ringqvist AK, Uvnäs-Moberg K, Berg M. Room4Birth - The effect of giving birth in a hospital birthing room designed with person-centred considerations: A Swedish randomised controlled trial. *Sex Reprod Healthc*. 2022 Jun;32:100731.
- 34 Karampampa K, **Gyllensten H**, Murley C, Alexanderson K, Kavaliunas A, Olsson T, Manouchehrinia A, Hillert J, Friberg E. Early vs. late treatment initiation in multiple sclerosis and its impact on cost of illness: A register-based prospective cohort study in Sweden. *Mult Scler J Exp Transl Clin*. 2022 Apr 24;8(2):20552173221092411.
- 33 Cederberg M, Alsén S, Ali L, Ekman I, Glise K, Jonsdottir IH, **Gyllensten H**, Swedberg K, Fors A. Effects of a Person-Centered eHealth Intervention for Patients on Sick Leave Due to Common Mental Disorders (PROMISE Study): Open Randomized Controlled Trial. *JMIR Ment Health*. 2022 Mar 15;9(3):e30966.
- 32 Haby K, **Gyllensten H**, Hanas R, Berg M, Premberg Å. A Lifestyle Intervention During Pregnancy and Its Effects on Child Weight 2.5 Years Later. *Matern Child Health J*. 2022 Sep;26(9):1881-1890.
- 31 Saarijärvi M, Wallin L, Moons P, **Gyllensten H**, Bratt EL. Implementation fidelity of a transition program for adolescents with congenital heart disease: the STEPSTONES project. *BMC Health Serv Res*. 2022 Feb 5;22(1):153.
- 30 Ali L, Wallström S, Fors A, Barenfeld E, Fredholm E, Fu M, Goudarzi M, **Gyllensten H**, Lindström Kjellberg I, Swedberg K, Vanfleteren LEGW, Ekman I. Effects of Person-Centered Care Using a Digital Platform and Structured Telephone Support for

- People With Chronic Obstructive Pulmonary Disease and Chronic Heart Failure: Randomized Controlled Trial. *J Med Internet Res.* 2021 Dec 13;23(12):e26794.
- 29 **Gyllensten H**, Haby K, Berg M, Premberg Å. Cost effectiveness of a controlled lifestyle intervention for pregnant women with obesity. *BMC Pregnancy Childbirth.* 2021 Sep 21;21(1):639.
- 28 Saarijärvi M, Wallin L, Moons P, **Gyllensten H**, Bratt E. Mechanisms of impact and experiences of a person-centred transition programme for adolescents with CHD: The Stepstones project. *BMC Health Serv Res.* 2021 Jun 10;21(1):573.
- 27 Kavaliunas A, Manouchehrinia A, **Gyllensten H**, Alexanderson K, Hillert J. Importance of early treatment decisions on future income of multiple sclerosis patients. *Mult Scler J Exp Transl Clin.* 2020 Oct 7;6(4):2055217320959116.
- 26 Pirhonen L, **Gyllensten H**, Hansson Olofsson E, Fors A, Ali L, Ekman I, Bolin K. The cost-effectiveness of person-centred care provided to patients with chronic heart failure and/or chronic obstructive pulmonary disease. *HP Open* 2020;1:100005. DOI. <https://doi.org/10.1016/j.hopen.2020.100005>.
- 25 Pirhonen L, **Gyllensten H**, Fors A, Bolin K. Modelling the cost-effectiveness of person-centred care for patients with acute coronary syndrome. *Eur J Health Econ.* 2020 Dec;21(9):1317-1327.
- 24 Saarijärvi M, Wallin L, Moons P, **Gyllensten H**, Bratt EL. Factors affecting adolescents' participation in randomized controlled trials evaluating the effectiveness of healthcare interventions: the case of the STEPSTONES project. *BMC Med Res Methodol.* 2020;20(1):205.
- 23 **Gyllensten H**, Björkman I, Jakobsson Ung E, Ekman I, Jakobsson S. A national research centre for the evaluation and implementation of person-centred care: Content from the first interventional studies. *Health Expect.* 2020 Oct;23(5):1362-1375.
- 22 **Gyllensten H**, Kavaliunas A, Murley C, Alexanderson K, Hillert J, Tinghög P, Friberg E. Costs of illness progression for different multiple sclerosis phenotypes: a population-based study in Sweden. *Mult Scler J Exp Transl Clin* 2019;5(2):2055217319858383.
- 21 Karampampa K, **Gyllensten H**, Yang F, Murley C, Friberg E, Hillert J, Alexanderson K. Healthcare, Sickness Absence, and Disability Pension Cost Trajectories in the First 5 Years After Diagnosis with Multiple Sclerosis: A Prospective Register-Based Cohort Study in Sweden. *Pharmacoecon Open.* 2020 Mar;4(1):91-103.
- 20 Hedna K, Andersson M, **Gyllensten H**, Hagg S, Bottiger Y. Clinical relevance of alerts from a decision support system, PHARAO, for drug safety assessment in the older adults. *BMC Geriatrics* 2019 Jun 11;19(1):164.
- 19 Lalic S, Bell JS, **Gyllensten H**, Gisev N, Friberg E, Ilomaki J, Sluggett JK, Mittendorfer-Rutz E, Alexanderson K. Trajectories of sickness absence and disability pension before and after opioid initiation for noncancer pain: a 10-year population-based study. *Pain.* 2019 May;160(5):1224-1233.
- 18 Wallström S, Ekman I, Omerovic E, Ulin K, **Gyllensten H**. Cohort study of healthcare use, costs and diagnoses from onset to 6 months after discharge for takotsubo syndrome in Sweden. *BMJ Open.* 2019 Mar 1;9(2):e027814.
- 17 Pirhonen L, Bolin K, Olofsson EH, Fors A, Ekman I, Swedberg K, **Gyllensten H**. Person-Centred Care in Patients with Acute Coronary Syndrome: Cost-Effectiveness Analysis Alongside a Randomised Controlled Trial. *Pharmacoecon Open.* 2019 Dec;3(4):495-504.
- 16 **Gyllensten H**, Koinberg I, Carlström E, Olsson LE, Hansson Olofsson E. Economic evaluation of a person-centred care intervention in head and neck oncology: results from a randomized controlled trial. *Support Care Cancer.* 2019 May;27(5):1825-1834.

- 15 Gyllensten H, Kavaliunas A, Alexanderson K, Hillert J, Tinghög P, Friberg E. Costs and quality of life by disability among people with multiple sclerosis: a register-based study in Sweden. *Mult Scler J Exp Transl Clin.* 2018 Jul 9 ;4(3):2055217318783352.
- 14 Murley C, Yang F, Gyllensten H, Alexanderson K, Friberg E. Disposable income trajectories of working-aged individuals with diagnosed multiple sclerosis. *Acta Neurol Scand.* 2018 Dec;138(6):490-499.
- 13 Haby K, Berg M, Gyllensten H, Hanas R, Premberg Å. Mighty Mums - a lifestyle intervention at primary care level reduces gestational weight gain in women with obesity. *BMC Obes.* 2018 Jun 4;5:16.
- 12 Gyllensten H, Wiberg M, Alexanderson K, Norlund A, Friberg E, Hillert J, Ernstsson O, Tinghög P. Costs of illness of multiple sclerosis in Sweden: a population-based register study of people of working age. *Eur J Health Econ.* 2018;19:435–446.
- 11 Kavaliunas A, Danylaite Karrenbauer V, Gyllensten H, Manouchehrinia A, Glaser A, Olsson T, Alexanderson K, Hillert J. Cognitive function is a major determinant of income among multiple sclerosis patients in Sweden acting independently from physical disability. *Mult Scler.* 2017 Nov 1:1352458517740212.
- 10 Gyllensten H, Jönsson AK, Hakkarainen KM, Svensson S, Hägg H, Rehnberg C. Comparing Methods for Estimating Direct Costs of Adverse Drug Events. *Value Health.* 2017 Dec;20(10):1299-1310.
- 9 Gyllensten H, Wiberg M, Alexanderson K, Friberg E, Hillert J, Tinghög P. Comparing costs of illness of multiple sclerosis in three different years: A population-based study. *Mult Scler.* 2017 Mar 1:1352458517702549.
- 8 Natanaelsson J, Hakkarainen KM, Hägg S, Andersson Sundell K, Petzold M, Rehnberg C, Jönsson AK, Gyllensten H. Direct and indirect costs for adverse drug events identified in medical records across care levels, and their distribution among payers. *Res Social Adm Pharm.* 2017 Nov;13(6):1151-1158.
- 7 Kavaliunas A, Manouchehrinia A, Danylaite Karrenbauer V, Gyllensten H, Glaser A, Alexanderson K, Hillert J. Income in Multiple Sclerosis Patients with Different Disease Phenotypes. *PLoS One.* 2017 Jan 12;12(1):e0169460.
- 6 Gyllensten H, Wiberg M, Alexanderson K, Hillert J, Tinghög P. How does work disability of patients with MS develop before and after diagnosis? A nationwide cohort study with a reference group. *BMJ Open* 2016 Nov 17;6(11):e012731.
- 5 Fors A, Gyllensten H, Swedberg K, Ekman I. Effectiveness of person-centred care after acute coronary syndrome in relation to educational level: Subgroup analysis of a two-armed randomised controlled trial. *Int J Cardiol.* 2016 Jul 5;221:957-962.
- 4 Kavaliunas A, Wiberg M, Tinghög P, Glaser A, Gyllensten H, Alexanderson K, Hillert J. Earnings and Financial Compensation from Social Security Systems Correlate Strongly with Disability for Multiple Sclerosis Patients. *PLoS One.* 2015 Dec 22;10(12):e0145435.
- 3 Hedna K, Hakkarainen KM, Gyllensten H, Jönsson AK, Petzold M, Hägg S. Potentially inappropriate prescribing and adverse drug reactions in the elderly: a population-based study. *Eur J Clin Pharmacol.* 2015 Dec;71(12):1525-33.
- 2 Hedna K, Hakkarainen KM, Gyllensten H, Jönsson AK, Andersson Sundell K, Petzold M, Hägg S. Adherence to Antihypertensive Therapy and Elevated Blood Pressure: Should We Consider the Use of Multiple Medications? *PLoS One.* 2015 Sep 11;10(9):e0137451.
- 1 Hakkarainen KM, Gyllensten H, Jönsson AK, Andersson Sundell K, Petzold M, Hägg S. Prevalence, nature and potential preventability of adverse drug events - a population-based medical record study of 4970 adults. *Br J Clin Pharmacol.* 2014 Jul;78(1):170-83.

Peer-reviewed systematic literature reviews

- 5 Gyllensten H, Humayun J, Sjöbom U, Hellström A, Löfqvist C. Costs associated with retinopathy of prematurity: a systematic review and meta-analysis. *BMJ Open* 2022;12(11):e057864.
- 4 Sjöbom U, Nilsson AK, Gyllensten H, Hellström A, Löfqvist C. A systematic review and meta-analysis of preanalytical factors and methodological differences influencing the measurement of circulating vascular endothelial growth factor. *PLoS One*. 2022 Jul 6;17(7):e0270232.
- 3 Humayun J, Löfqvist C, Ley D, Hellström A, Gyllensten A. Systematic review of the healthcare costs of Bronchopulmonary Dysplasia. *BMJ Open*. 2021;11:e045729.
- 2 Ernstsson O, Gyllensten H, Alexanderson K, Tinghög P, Friberg E, Norlund A. Cost of Illness of Multiple Sclerosis - A Systematic Review. *PLoS One*. 2016 Jul 13;11(7):e0159129.
- 1 Gyllensten H, Jönsson AK, Rehnberg C, Carlsten A. How are the costs of drug-related morbidity measured?: a systematic literature review. *Drug Saf*. 2012 Mar 1;35(3):207-19.

Peer-reviewed publications of study protocols

- 5 Cederberg M, Ali L, Ekman I, Glise K, Jonsdottir IH, Gyllensten H, Swedberg K, Fors A. Person-centred eHealth intervention for patients on sick leave due to common mental disorders: study protocol of a randomised controlled trial and process evaluation (PROMISE). *BMJ Open*. 2020;10(9):e037515.
- 4 Ali L, Wallström S, Barenfeld E, Fors A, Fredholm E, Gyllensten H, Swedberg K, Ekman I. Person-centred care by a combined digital platform and structured telephone support for people with chronic obstructive pulmonary disease and/or chronic heart failure: study protocol for the PROTECT randomised controlled trial. *BMJ Open*. 2020;10(7):e036356.
- 3 Berg M, Goldkuhl L, Nilsson C, Wijk H, Gyllensten H, Lindahl G, Uvnäs Moberg K, Begley C. Room 4 Birth - The effect of an adaptable birthing room on labour and birth outcomes for nulliparous women at term with spontaneous labour start: study protocol for a randomised controlled superiority trial in Sweden. *Trials* 2019 Nov 19;20(1):629.
- 2 Saarijärvi M, Wallin L, Moons P, Gyllensten H, Bratt EL. Transition program for adolescents with congenital heart disease in transition to adulthood: protocol for a mixed-methods process evaluation study (the STEPSTONES project). *BMJ Open*. 2019 Aug 2;9(8):e028229.
- 1 Björk Brämberg E, Holmgren K, Bültmann U, Gyllensten H, Hagberg J, Sandman L, Bergström G. Increasing return-to-work among people on sick leave due to common mental disorders: design of a cluster-randomized controlled trial of a problem-solving intervention versus care-as-usual conducted in the Swedish primary health care system (PROSA). *BMC Public Health*. 2018 Jul 18;18(1):889.

Other scientific publications

- 5 Gyllensten H, Fuller JM, Östbring MJ. Commentary: how person-centred is pharmaceutical care? *Int J Clin Pharm*. 2022 Feb;44(1):270-275.

- 4 **Gyllensten H**, Alexanderson K, Hillert J, Tinghög P. Mönster i sjukfrånvaro före och efter MS-diagnos. BESTPRACTICE, Multipel Skleros Mars 2017. (Tillgänglig: <https://bestprac.se/2017/03/20/monster-sjukfranvaro-fore-och-etter-ms-diagnos/>).
- 3 **Gyllensten H**, Norlund A, Alexanderson K. Rapport: Beräkningar av kostnader för hälso- och sjukvårdens koordinering i sjukskrivnings- och rehabiliteringsprocessen. Rapport från Sektionen för försäkringsmedicin, Institutionen för klinisk neurovetenskap, november 2015.
- 2 Stålsby Lundborg C, **Gyllensten H**, Hedna K, Hakkarainen KM, Lesén E, Andersson Sundell K. Pharmacoepidemiology at Nordic School of Public Health NHV: Examples from 1999 to 2014. Scand J Public Health. 2015 Aug;43(16 Suppl):73-80.
- 1 **Gyllensten H**, Steen Carlsson K. Rapport: Nya läkemedel och läkemedelsrelaterad sjuklighet: Analysmöjligheter i svenska registerdata. Rapport från SNS (Studieförbundet Näringsliv och Samhälle) forskningsprogram Värdelet av nya läkemedel, september 2013.