



UvA-DARE (Digital Academic Repository)

Statistical challenges in observational cohort studies

Hof, M.H.P.

Publication date

2015

Document Version

Final published version

[Link to publication](#)

Citation for published version (APA):

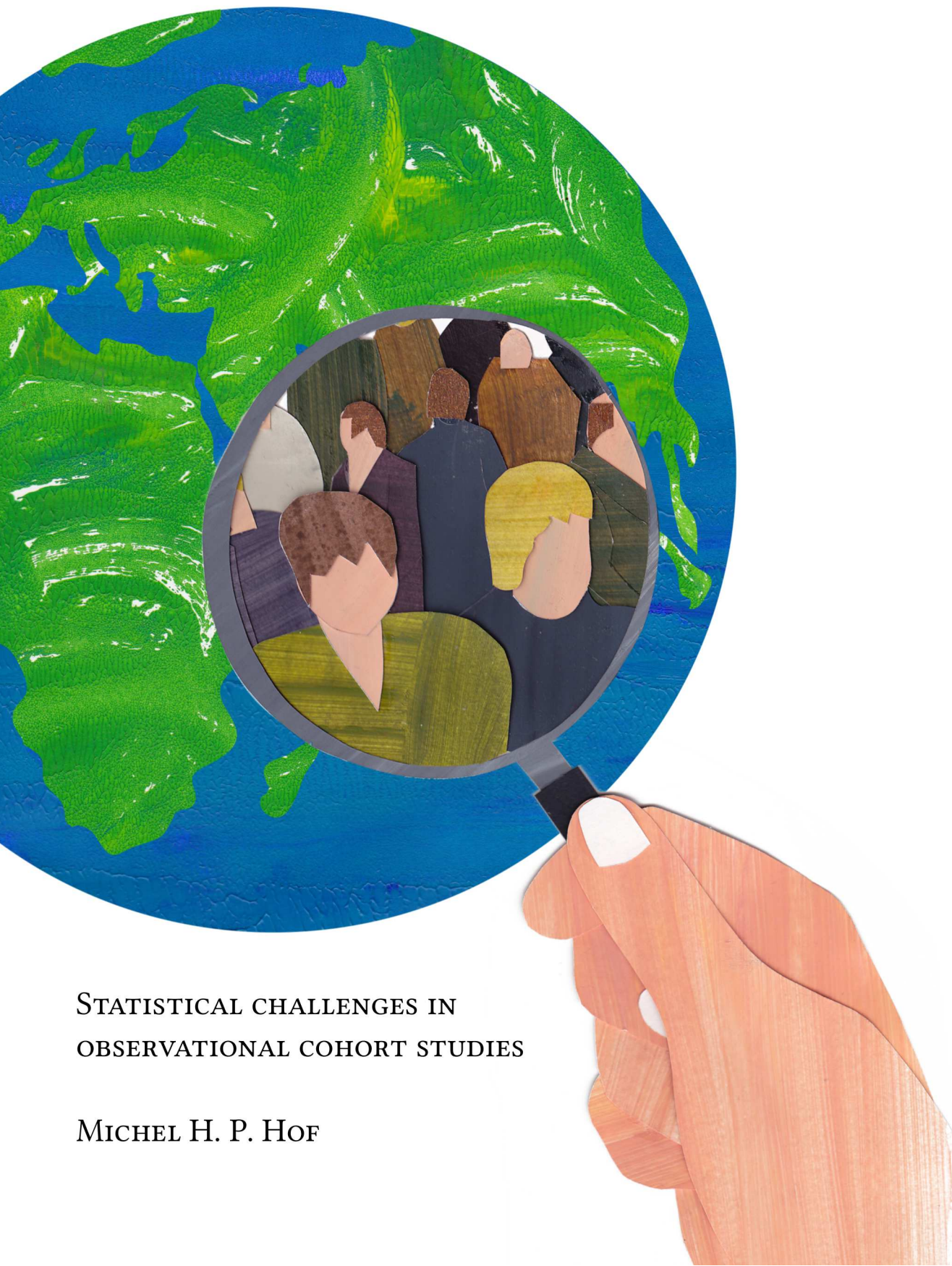
Hof, M. H. P. (2015). *Statistical challenges in observational cohort studies*. [Thesis, fully internal, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



STATISTICAL CHALLENGES IN
OBSERVATIONAL COHORT STUDIES

MICHEL H. P. HOF

STATISTICAL CHALLENGES IN
OBSERVATIONAL COHORT STUDIES

Michel Hendrik Pieter Hof

© 2015 by Michel Hof
Statistical challenges in observational cohort studies
Michel H. P. Hof/ University of Amsterdam, 2015. Thesis

Cover design by Desiree Hof
Printed by Ipskamp Drukkers B.V.
ISBN: 978-94-6259-581-1

No part of this thesis may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without permission of the author

STATISTICAL CHALLENGES IN
OBSERVATIONAL COHORT STUDIES

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. D. C. van den Boom
ten overstaan van een door het College voor Promoties ingestelde
commissie, in het openbaar te verdedigen in de Agnietenkapel
op donderdag 19 maart 2015, te 14:00 uur
door

Michel Hendrik Pieter Hof

geboren te Heemskerk

PROMOTIECOMMISSIE:

PROMOTOR: Prof. dr. A. H. Zwinderman Universiteit van Amsterdam

OVERIGE LEDEN: Prof. dr. A. Abu-Hanna Universiteit van Amsterdam
Dr. O. H. Klungel Universiteit Utrecht
Prof. dr. A. E. Kunst Universiteit van Amsterdam
Prof. dr. H. Putter Universiteit Leiden
Dr. J. B. Reitsma Universiteit Utrecht
Prof. dr. A. K. Smilde Universiteit van Amsterdam
Prof. dr. J. G. P. Tijssen Universiteit van Amsterdam

Faculteit der Geneeskunde

CONTENTS

1	INTRODUCTION	1
---	--------------	---

I Sampling

2	ADAPTIVE LIST SEQUENTIAL SAMPLING METHOD FOR POPULATION BASED OBSERVATIONAL STUDIES	11
---	--	----

M.H.P. HOF, A.C.J. RAVELLI, AND A.H. ZWINDERMAN. *BMC Med Res Methodol.* 2014; 14:81

II Record linkage

3	METHODS FOR ANALYZING DATA FROM PROBABILISTIC LINKAGE STRATE- GIES BASED ON PARTIALLY IDENTIFYING VARIABLES	35
---	--	----

M.H.P. HOF AND A.H. ZWINDERMAN. *Stat Med.* 2012; 31(30): 4231-42

4	A MIXTURE MODEL FOR THE ANALYSIS OF DATA DERIVED FROM RECORD LINKAGE	59
---	---	----

M.H.P. HOF AND A.H. ZWINDERMAN. *Stat Med.* 2015; 34(1): 74-92

III Joint modeling

5	QUASI MONTE CARLO APPROXIMATION IN JOINT MODELS FOR MULTI- PLE LONGITUDINAL MARKERS AND RECURRENT EVENTS OF MULTIPLE TYPES, IN THE PRESENCE OF A TERMINAL EVENT	97
---	---	----

M.H.P. HOF, Z.J. MUSORO, R.B. GESKUS, G.H. STRUIJK, J.M. TEN BERGE,
A.H. ZWINDERMAN. Submitted to *CSDA*. 2015

IV Childhood growth

6	COMPARISON OF GROWTH BETWEEN NATIVE AND IMMIGRANT INFANTS BETWEEN 0-3 YEARS FROM THE DUTCH ABCD COHORT	129
	M.H.P. HOF, A.E. VAN DIJK, T.G.M. VRIJKOTTE, M. VAN EIJSDEN, AND A.H. ZWINDERMAN. <i>Ann Hum Biol.</i> 2011; 38(5): 544-55	
7	ASSOCIATION BETWEEN INFANCY BMI PEAK AND BODY COMPOSITION AND BLOOD PRESSURE AT AGE 5-6 YEARS	155
	M.H.P. HOF, T.G.M. VRIJKOTTE, M.L.A. DE HOOG, M. VAN EIJSDEN, AND A.H. ZWINDERMAN. <i>PLoS One.</i> 2013 4; 8(12): e80517	
8	CONCLUSIONS AND FURTHER RESEARCH	181
	SUMMARY	187
	SAMENVATTING	193
	DANKWOORD	199
	CURRICULUM VITAE	203
	PHD PORTFOLIO	207
	BIBLIOGRAPHY	211