Universiteit
Leiden
The Netherlands

NIPT : non-invasive prenatal testing : towards implementation in the Netherlands

Verweij, E.J.T.

Citation
Verweij, E. J. T. (2014, April 30). *NIPT : non-invasive prenatal testing : towards implementation in the Netherlands*. Retrieved from https://hdl.handle.net/1887/25414

Version:	Corrected Publisher's Version
License:	Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden
Downloaded from:	https://hdl.handle.net/1887/25414

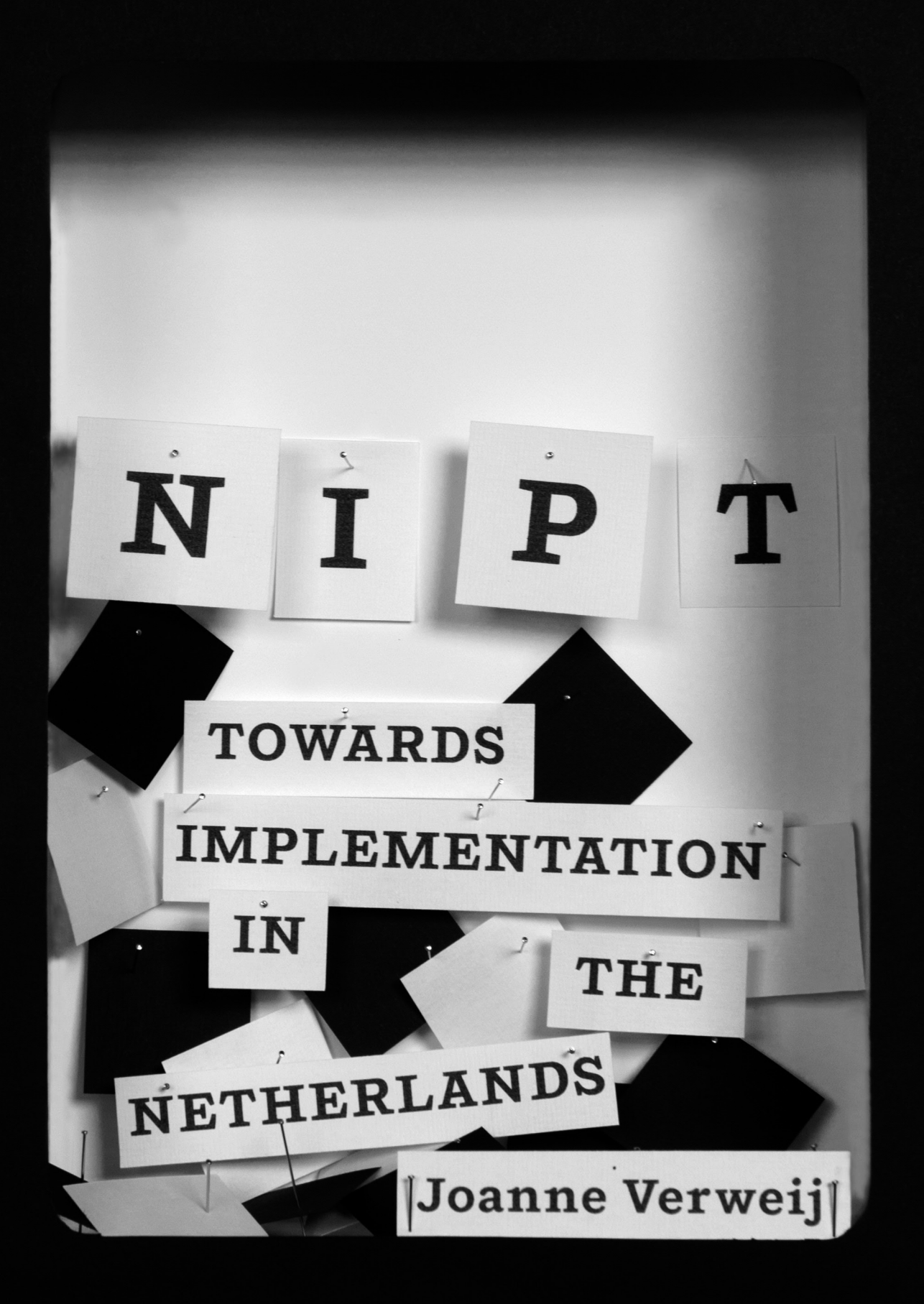
Note: To cite this publication please use the final published version (if applicable).

Cover Page

Universiteit Leiden

The handle http://hdl.handle.net/1887/25414 holds various files of this Leiden University dissertation

Author: Verweij, Joanne
Title: NIPT : non-invasive prenatal testing : towards implementation in the Netherlands
Issue Date: 2014-04-29


NIPT
TOWARDS
IMPLEMENTATION
IN
THE
NETHERLANDS
Joanne Verweij

© 2014 - E.J.T. Verweij
NIPT: towards implementation in the Netherlands

The studies described in this thesis were performed at the Department of Obstetrics of the Leiden University Medical Center, the Netherlands.

ISBN: 978-94-6108-647-1

Cover and layout: *'een blik op de toekomst'*
Joanne Verweij and Sander Hegeman (Suitup Studio – www.suitupstudio.nl)
Printed by Gildeprint - Enschede

The publication of this thesis was financially supported by: Astellas Pharma Inc., Becton Dickinson B.V., BMA B.V. (Mosos), ChipSoft B.V., Natera Inc., Raad van Bestuur – Reinier de Graaf Gasthuis, Sorg-Saem B.V. (Astraia), Stichting Oranjekliniek, Toshiba Medical Systems Nederland, Afdeling Verloskunde – LUMC.

NIPT

non-invasive prenatal testing:

towards implementation in the Netherlands

PROEFSCHRIFT

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op dinsdag 29 april 2014
klokke 16.15 uur

door

Elizabeth Johanna Takalani Verweij

geboren te Thohoyandou
in 1984

PROMOTIECOMMISSIE

Promotor:	Prof. dr. D. Oepkes
Copromotor:	Dr. M.A. de Boer *(LUMC, VU Medisch Centrum)*
Overige leden:	Prof. dr. B. Jacobsson *(Sahlgrenska University Hospital, Gothenburg, Zweden & Senior reseacher Institute of Public Health, Oslo, Noorwegen)*
	Prof. dr. M. H. Breuning
	Dr. G.C.M.L. Christiaens *(Universitair Medisch Centrum Utrecht)*

TABLE OF CONTENTS

I	GENERAL INTRODUCTION	7
II	PERFORMANCE	
	1. *Diagnostic accuracy of non-invasive detection of fetal trisomy 21 in maternal blood: a systematic review*	25
	2. *European Non-Invasive Trisomy Evaluation (EU-NITE) study: a multicenter prospective cohort study for non-invasive fetal trisomy 21 testing*	39
	3. *Non-invasive prenatal testing for trisomy 13; more harm than good?*	53
III	DECISION MAKING	
	4. *Changing attitudes towards termination of pregnancy for trisomy 21 with non-invasive prenatal trisomy testing: a population-based study in Dutch pregnant women*	65
	5. *Non-invasive prenatal screening for trisomy 21: What women want and are willing to pay*	75
	6. *Decision-making in prenatal screening; money matters*	89
IV	TOWARDS NIPT IN THE NETHERLANDS	
	7. *Attitudes of Dutch primary care midwives towards the current prenatal screening and non-invasive prenatal testing*	99
	8. *Déjà vu: discussie over de non-invasieve prenatale test (NIPT) voor Nederlandse zwangeren*	123
V	OPINION	
	9. *Non-invasive prenatal diagnosis for Down syndrome: no paradigm shift, just better testing. . .and it is already here!*	139
VI	SUMMARY & DISCUSSION	
	10. *Summary & General discussion*	149
	11. *Nederlandse samenvatting*	169
VII	APPENDICES	
	12. *Publications*	191
	13. *Curriculum Vitae*	197
	14. *Dankwoord*	201
	15. *Abbreviations*	205