Contents

Chapter 1: Introduction 9

Chapter 2: Handling of missing data in questionnaires in epidemiological studies: a systematic review 23

Chapter 3: Missing data on a multi-item questionnaire are best handled by multiple imputation at the item score level 39

Chapter 4: Multiple imputation at the item score level when the number of items is very large 57

Chapter 5: Analyzing incomplete item scores in longitudinal data by including item score information as auxiliary variables 75

Chapter 6: Including auxiliary item information to handle missing questionnaire data in two longitudinal data examples 107

Chapter 7: Handling missing data in sub-costs in a cost effectiveness analysis 131

Chapter 8: General discussion 153

Abbreviations and symbols 167

Summary | English 171

Samenvatting | Nederlands 177

Dankwoord | Acknowledgment 183

Publication list 189

Curriculum vitae 193