University of Groningen

The healthcare purchaser as a care chain orchestrator

Noort, Albert

DOI:
[10.33612/diss.133147906](https://doi.org/10.33612/diss.133147906)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Noort, A. (2020). *The healthcare purchaser as a care chain orchestrator: Healthcare system limitations and opportunities*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen, SOM research school. <https://doi.org/10.33612/diss.133147906>

Copyright

Other than for strictly personal use, 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), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

The healthcare purchaser as a care chain orchestrator

Healthcare system limitations and opportunities

by

Bart A.C. Noort

Publisher: University of Groningen
Groningen, the Netherlands

Printer: Ipskamp Drukkers B.V.
Enschede, the Netherlands

Cover photo: Fidel Fernando on Unsplash

Backside photo: André Rozendal

© 2020 A.C. Noort

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system of any nature, or transmitted in any form or by any means, electronic, mechanical, now known or thereafter invented, including photocopying or recording, without prior written permission of the author.

university of
 groningen

The healthcare purchaser as a care chain orchestrator

Healthcare system limitations and opportunities

PhD thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus Prof. C. Wijmenga
and in accordance with
the decision by the College of Deans.

This thesis will be defended in public on

Thursday 17 September at 12.45 hours

by

Albert Cornelis Noort

born on 22 April 1988
in Rijnsburg

Supervisors

Prof. C.T.B. Ahaus

Prof. J.T. van der Vaart

Assessment Committee

Prof. H. Broekhuis

Prof. E.M. van Raaij

Prof. F. Lega

Contents

CHAPTER 1. INTRODUCTION	9
1.1 Motivation for this study	10
1.2 Scientific foundation	12
1.2.1 Chronic care chain management	12
1.2.2 The case of COPD	14
1.2.3 Coordinating and financing chronic care delivery	16
1.2.4 The purchaser-provider split	19
1.2.5 Strategic purchasing	20
1.3 Research objectives and thesis outline	22
CHAPTER 2. HOW HEALTHCARE SYSTEMS SHAPE A PURCHASER'S STRATEGIES AND ACTIONS WHEN MANAGING CHRONIC CARE	27
2.1 Introduction	28
2.2 Background	29
2.2.1 Improving chronic care delivery	29
2.2.2 Healthcare systems and purchasing	30
2.3 Methodology	30
2.3.1 Data collection	32
2.3.2 Data analysis	33
2.4 Results	34
2.4.1 Within-case analysis	34
2.4.2 Cross-case analysis	44
2.5 Discussion	46
2.5.1 Purchaser engagement	46
2.5.2 The purchaser's strategic lens	47
2.5.3 The purchaser's influencing style	48
2.5.4 Limitations and future research	49
2.5.5 Policy implications	50
2.5.6 Conclusion	51
Appendix I. Care commissioning, provision and coordination in the three studied countries	52
CHAPTER 3. ORCHESTRATION VERSUS BOOKKEEPING: HOW STAKEHOLDER PRESSURES DRIVE A HEALTHCARE PURCHASER'S INSTITUTIONAL LOGICS	57
3.1 Introduction	58
3.2 Theoretical background	59
3.2.1 Managing chronic care chains	59
3.2.2 Institutional logics in organisations	60

3.3	Methodology	62
3.3.1	Research design	62
3.3.2	Research setting	62
3.3.3	Data collection	63
3.3.4	Analysis	65
3.4	Findings	66
3.4.1	Defining the orchestrator's and bookkeeper's logic	66
3.4.2	The emergence of the orchestrator's logic and falling back into bookkeeping	67
3.4.3	Stakeholder pressures and the purchaser's internal response	76
3.5	Discussion	77
3.5.1	Interaction among stakeholder pressures	78
3.5.2	The purchaser's intra-organisational alignment	80
3.5.3	Policy and managerial implications	81
3.5.4	Limitations	82
3.5.5	Conclusion	83

Appendix I. Overview of purchaser actions over time, the link with the orchestrator's and bookkeeper's logics and stakeholder pressures.	84
--	----

CHAPTER 4. FEASIBILITY OF INTENSIVE OUT-OF-HOSPITAL COACHING FOR FREQUENTLY HOSPITALISED COPD PATIENTS 87

4.1	Introduction	88
4.2	Background	89
4.2.1	Global Initiative for Chronic Obstructive Lung Disease	89
4.2.2	COPD and behaviour	90
4.2.3	Coaching	91
4.2.4	Cost-effectiveness of coaching	92
4.3	Methodology	93
4.3.1	Study design and data collection	93
4.3.2	Patient population and recruitment	93
4.3.3	Design of the coaching intervention	94
4.3.4	Measurements	95
4.3.5	Sample size calculation and statistical analysis	97
4.3.6	Evaluation of feasibility	98
4.4	Results	98
4.4.1	Part 1. Health status evaluation (all patients)	98
4.4.2	Part 2. Cost effectiveness evaluation (insurance data subset)	102
4.4.3	Part 3. Feasibility	106
4.5	Discussion and conclusion	108
4.5.1	Main findings	108
4.5.2	Susceptibility to coaching	109
4.5.3	Patient-reported symptoms, well-being and disease-management awareness	110
4.5.4	Limitations	110
4.5.5	Conclusion	112

Appendix I. Outcomes panel linear regression models for questionnaires	113
--	-----

Appendix II. Outcomes panel linear regression model for hospitalisation costs	114
---	-----

CHAPTER 5. GENERAL DISCUSSION	115
5.1 Main findings	116
5.1.1 Healthcare system characteristics shape purchaser strategies and actions	116
5.1.2 Stakeholder pressures explain the purchaser's institutional logic	117
5.1.3 Intensive home-coaching is feasible and can benefit COPD patient well-being	117
5.2 Scientific contributions	119
5.2.1 Taxation versus insurance	119
5.2.2 Externally and internally enabling strategic purchasing	119
5.2.3 The right care at the right place for COPD patients	121
5.3 Societal contributions	122
5.3.1 The right context for the right care at the right place	122
5.3.2 Government stewardship	123
5.3.3 Sustainably improving chronic care	124
5.3.4 Limitations	125
5.3.5 Future research	126
5.3.6 Concluding remarks	128
BIBLIOGRAPHY	129
SUMMARY	145
SAMENVATTING (DUTCH SUMMARY)	153
DANKWOORD (ACKNOWLEDGEMENTS)	161
CURRICULUM VITAE	165
LIST OF PUBLICATIONS	167