

# Self-Evaluation Report

2004  
2009

**caphri**

Self-Evaluation  
Report 2004-2009



**CAPHRI**  
**School for Public Health**  
**and Primary Care**

Self-Evaluation Report 2004-2009

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<sup>1</sup> To reduce the number of printed pages, some appendices were placed on a secluded part of the CAPHRI website.



# Preface

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It is a great pleasure to introduce the CAPHRI Self-Evaluation Report 2004-2009. On the following pages you will first find the programme of the CAPHRI Review Committee December 13-15, 2010.

We feel honoured that such an experienced team of international reviewers is willing to come to Maastricht to invest their precious time in reviewing CAPHRI. The board of Maastricht University Medical Centre and the board of Maastricht University have selected a group of world-renowned experts from different research areas of CAPHRI. This Self-Evaluation Report 2004-2009 is primarily written for this Review Committee, in order to be accountable to the outside world. We hope that this report will enable the Review Committee to have full insight not only into the results that were obtained in the past six years, but also into the actions that have been taken by CAPHRI to make the School of Public Health and Primary Care a fruitful and pleasant place to work for all employees. We are more than willing to answer any remaining questions before or during the Review Visit in December.

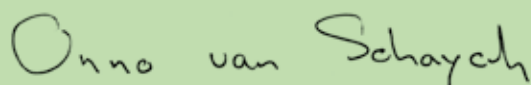
Secondly, the Self-Evaluation is written for the Board of Maastricht University Medical Centre and the Board of Maastricht University, in order to be accountable to the inside world.

Finally this report is written as a sign of appreciation for all the employees who have worked so hard to obtain the excellent results that we have seen in the past years.

Without the dedication of all these men and women we would not be where we are right now and we are grateful to them.

In order to limit the number of printed pages, some Annexes of this Report (with many pages of background information) have been put on a secluded part of the CAPHRI website<sup>2</sup> only. On this website you will also find the complete Self-Evaluation Report 2004-2009, including its Annexes, as well as the CAPHRI Annual Reports of 2005-2009 and the mid-term self-evaluation 2004-2006. Moreover, you will find the guidelines of the Standard Evaluation Protocol 2009-2015 (SEP), which was developed as an evaluation system for public funded research in the Netherlands and approved by the Royal Netherlands Academy of Arts and Science (KNAW), the Netherlands Organization for Scientific Research (NWO) and the Association of Universities in the Netherlands (VSNU). In writing this report we carefully followed the instructions of this SEP protocol (Annex 18, on secluded website). In addition to the SEP-protocol, in order to describe the societal impact, the 'Evaluating Research in Context' guideline was used (Annex 19, on secluded website).

The reader might wonder why some texts in this report are displayed in a mirror-shape. This evaluation aims at inversion. It is a sincere attempt at institutional self-reflection over the past 6 years. We look to place a mirror in front of the School and its leadership to reflect back to us who and what we are and what has been obtained in these years and consequently what we can expect for the future on the basis of our past performance, our plans and our ambitions.



Prof. Onno van Schayck,  
Scientific Director CAPHRI

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<sup>2</sup> See [www.caphri.nl](http://www.caphri.nl), click on the menu item 'login' and enter the secluded pages with the user name and password that will be distributed separately.

# Programme External Review CAPHRI

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**Monday, December 13, 2010**

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**Location** NH-hotel, Forum 110, Maastricht

**Afternoon** Arrival members external review committee in Maastricht

**17.45** Taxi from NH-hotel to Château Neercanne

**18.00 - 18.30** Installation external review committee  
Prof. Martin Paul, dean of the Faculty of Health, Medicine and Life Sciences (FHML)

Committee members:

Prof. Patrick Bindels  
Chair of the Review Committee  
*Erasmus Medical Centre,  
Rotterdam, The Netherlands*

Prof. Heiner Bucher  
*University Hospital Basel, Basel,  
Switzerland*

Prof. David Mant  
*University of Oxford, Oxford, UK*

Prof. Andreas Stuck  
*Inselspital and University of Bern, Bern,  
Switzerland*

Prof. Victor Strecher  
*University of Michigan, Ann Arbor, USA*

Dr. Bert Boer  
*College voor zorgverzekeringen, Diemen,  
The Netherlands*

Petra Uittenbogaard  
Secretary to the Review Committee  
*Centre for Research Innovation, Support  
and Policy, Maastricht UMC+,  
Maastricht, The Netherlands*

**18.30 - 20.30** Welcoming Dinner  
Invitees:

Prof. Martin Paul  
*Dean FHML*

Prof. Frits van Merode  
*Vice-dean FHML*

Prof. Jos Smits  
*Pro-dean for research FHML*

Winnie Bosch, MSc  
*Director FHML*

Prof. Onno van Schayck  
*Scientific Director CAPHRI*

Astrid Frissen, MSc  
*Managerial Director CAPHRI*

Prof. André Knottnerus,  
*Cluster leader Primary Care*

Prof. Cor Spreeuwenberg  
*Cluster leader Innovation of Care*

Prof. Nanne de Vries  
*Cluster leader Public Health*

Ingrid Leijts, MSc  
*Policy Advisor*

Hannerieke van der Boom, PhD  
*PhD co-ordinator*

Erie van den Heuvel  
*Controller*

**20.30** Taxi from Château Neercanne to NH-hotel (members ERC)

**20.45 - 21.30** Closed session on working procedure and writing of report

## Tuesday, December 14, 2010

<b>Public Session</b>		<b>Location</b>	Room 6.538, Universiteitssingel 40, Maastricht
<b>Chair: Prof. Patrick Bindels</b>			
<i>Chair of the Review Committee</i>			
<b>Location</b>	MSM-Building, opposite Universiteitssingel 40	<b>13.30 - 14.15</b>	Session Education and young talent (PhD, HSRM, Masters): Prof. Rob de Bie (introduction) Prof. Bert Vrijhoef Hannerieke van der Boom, PhD Christel van Gool, PhD Prof. Onno van Schayck
<b>08.30 - 08.50</b>	Introduction CAPHRI Speaker: Prof. Onno van Schayck		
<b>08.50 - 09.20</b>	Discussion		
<b>09.20 - 09.40</b>	Overview Primary Care Cluster Speaker: Prof. André Knottnerus	<b>14.15 - 14.45</b>	Session with PhD-candidates: Katarina Putnik, MSc <i>PhD representative, introduction</i> Marla Woolderink, MSc <i>PhD representative</i> Sil Aarts, MSc <i>former PhD representative</i> Emmylou Beekman, MSc Luc Gidding, MSc Kim van de Kant, MSc Dianne de Korte, MSc Silke Metzelthin, MSc
<b>09.40 - 10.10</b>	Discussion		
<b>10.10 - 10.30</b>	Overview Innovation of Care Cluster Speaker: Prof. Cor Spreeuwenberg		
<b>10.30 - 11.00</b>	Discussion		
<b>11.00 - 11.15</b>	Coffee Break		
<b>11.15 - 11.35</b>	Overview Public Health Cluster Speaker: Prof. Nanne de Vries		
<b>11.35 - 12.05</b>	Discussion	<b>14.45 - 15.15</b>	Session with Post-docs and VENI-candidates: Jochen Cals, PhD (introduction) Rik Crutzen, PhD Liesbeth van Osch, PhD Bart Penders, PhD Daniel Kotz, PhD Mark Spigt, PhD Janneke Grutters, PhD
<b>Location</b>	NH-hotel, Forum 110, Maastricht		
<b>12.15 - 13.20</b>	Working Lunch. Theme: CCTR Invitees: Gerrit van Ark, PhD (NWO) Prof. Martin Paul Prof. Luc de Witte Prof. Nanne de Vries Prof. Cor Spreeuwenberg Prof. André Knottnerus Prof. Onno van Schayck	<b>15.15 - 15.30</b>	Break →

<b>15.30 - 17.00</b>	<p>Site-visits at Maastricht University Medical Center+:</p> <p>Dept. of Paediatrics Prof. Edward Dompeling: <i>Exhaled Breath Condensator</i></p> <p>Dept. of Orthopaedic Biotechnology Prof. Lodewijk van Rhijn: <i>Musculoskeletal disorders</i></p> <p>Dept. of General Practice Prof. Job Metsemakers Prof. Frank Buntinx Jean Muris, PhD Marjan van den Akker, PhD Charles Limonard, PhD: <i>Film on RNH and academic general practices</i></p> <p>Dept. of Health Promotion Prof. Hein de Vries: e-health</p>	<b>18.30 - 19.30</b>	<p>Closed Session: short reflection on today's progress</p>
<b>Location:</b>	<p>Room 6.538 Universiteitssingel 40, Maastricht</p>	<b>19.45</b>	<p>Taxi from NH-hotel to Restaurant Sofa (members ERC)</p>
<b>17.00 - 18.00</b>	<p>Session with programme leaders: Prof. IJmert Kant (introduction) Prof. Robert Landewé Prof. Martin Prins Prof. Cathrien Bruggeman Prof. Ruud Kempen Prof. Bert Vrijhoef Prof. Trudy van der Weijden Jean Muris, PhD</p>	<b>Location:</b>	<p>Restaurant Sofa, Hoge Weerd 6, Maastricht</p>
<b>18.00 - 18.30</b>	<p>Session with Dean of FHML and Director Maastricht Health Campus on position of CAPHRI in 2020 Prof. Martin Paul, <i>Dean</i> Henk Hoogervorst, PhD, <i>Director Maastricht Health Campus</i></p>	<b>20.00 - 22.00</b>	<p>Informal dinner</p> <p>Session on Academic Collaborative Centre of Public Health Chair: Fons Bovens, PhD <i>Director South Limburg GGD</i> Maria Janssen, PhD <i>Programme leader, Academic Collaborative Centre</i> Christian Hoebe, PhD <i>Academic Collaborative Centre</i> Manon Ernst, MSc <i>Academic Collaborative Centre</i> Prof. IJmert Kant <i>Programme leader RVTV</i></p> <p>Invitees: Members Schoolcouncil MUMC+ Board CAPHRI director and staff</p>

## Wednesday, December 15, 2010

<b>Location</b>	Room 6.538 Universiteitssingel 40, Maastricht	<b>11.00 – 11.30</b>	Session with dean of FHML First impression Review Prof. Martin Paul	
<b>08.30 - 09.00</b>	Session with the Board of Maastricht UMC+ and Division Director Guy Peeters, MSc <i>Chairman Maastricht UMC+</i> Prof. Martin Paul <i>Dean</i> Harm Jan Driessen, MSc <i>Member of the Maastricht UMC+ board</i> Hans Fiolet, PhD <i>Director RVE Integrated Health Care</i>	<b>Location</b>	NH-hotel, Forum 110, Maastricht	
<b>09.00 - 09.30</b>	Session with the Board of ZKO Public Health and Primary Care Hans Fiolet, PhD Prof. Job Metsemakers Prof. Onno van Schayck	<b>11.45 - 14.30</b>	Closed session (and lunch): Discussion and formulation of preliminary conclusions	
<b>09.30 - 10.30</b>	Session Societal Impact Jacques Costongs, PhD Jo Maes, MSc Lies van Gennip, PhD	<b>14.30 - 15.30</b>	Presentation of the preliminary conclusions (while enjoying coffee and cakes): Prof. Patrick Bindels, <i>Chair of the review committee</i>	
<b>10.30 - 11.00</b>	Session with scientific director and staff CAPHRI Remaining questions Prof. Onno van Schayck Astrid Frissen, MSc Ingrid Leijs, MSc Hannerieke van der Boom, PhD	<b>Invitees:</b> Guy Peeters, MSc Prof. Martin Paul Prof. Onno van Schayck Prof. Nanne de Vries Prof. Cor Spreeuwenberg Harm Jan Driessen, MSc Members Schoolcouncil	<b>15.30</b>	End of Programme



# A Documentation at school level

# **A**

# **Documentation**

# **at School level**

## Introduction

Demographic, social, scientific and health care developments, and their related changes in morbidity patterns, have strong implications for primary care and public health, and for the collaboration between care professionals in- and outside hospital walls. Special attention is needed to ensure an integrated, generalist approach to health problems, and to find innovative solutions for problems in daily practice. In addition, new health threats and the increase of chronic diseases bring new challenges for health promotion and prevention. To effectively deal with these developments, an intense and continuous interaction between health research, practice and policy is of the utmost importance, in both fine-tuning the research agenda and providing solid research results for evidence-based prevention and care. This closely connects with CAPHRI's scientific and societal mission, which has the ultimate aim of improving the health of the population (see mission statement A.1.1). The School aims to achieve its mission of developing and providing relevant knowledge by applying robust research methodology to complex and dynamic care and public health practice. In turn, the field of practice feeds CAPHRI's zeal for innovative scientific and strategic solutions to major health care and public health challenges in its domain of interest and excellence. Thus, CAPHRI acts as the scientific spider in the continuously developing health care web. CAPHRI's success in research and education comes down to the collective talent and dedication of all CAPHRI's scientific staff. As the continuity of a high quality research community is of utmost importance to CAPHRI, research education and training is a key priority and is undertaken in the fruitful context of the Netherlands School of Primary Care Research (CaRe), which is coordinated by CAPHRI.

The CAPHRI School for Public Health and Primary Care is one of five schools in the Faculty of Health, Medicine & Life Sciences (FHML), which are embedded within the Maastricht University Medical Centre+. In addition to

research, the School is responsible for training researchers and providing (research) Master's education in the area of public health and primary care.

CAPHRI aims to excel in scientific quality as well as in societal relevance, and has been successful in doing so. The proof of the pudding is in the many performance highlights, for example, a strong bibliometric score, high output figures, healthy earning capacity, strong international collaboration, a viable research master and a high number of PhD theses per year, which will be elaborated upon in this self-evaluation study. In terms of societal relevance, CAPHRI has many examples of the impact its research has on specific stakeholders or specific procedures in society, and the way in which CAPHRI research contributes to important issues and debates in this context.

It does not seem all that long ago that a review committee visited CAPHRI. In October 2007, at the request of the then FHML Dean, the School was assessed by a national review committee as part of a mid-term evaluation. CAPHRI chose to break the mould of the usual Standard Evaluation Protocol (SEP) procedures by inviting a group of national peers to evaluate the School thoroughly. They then provided the School and Faculty Board with advice concerning the programme structure and the quality of the programmes, as well as the overall quality of research in the context of a dynamic local, national and international environment, judged according to the KNAW SEP standards. CAPHRI went on to use the advice of the mid-term review committee (MRC)<sup>3</sup> as a major tool to sustain and improve the quality of its research and education programmes, and to underpin multiple strategic decisions. The MRC had some important remarks which were taken into account by CAPHRI in the years following the review. The conclusions of the MRC were presented in an official report, which was received by CAPHRI in December 2007 (see Annex 2). Annex 3 presents a schematic overview of all MRC recom-

mendations and the resulting actions taken by CAPHRI. This overview demonstrates that CAPHRI took on board all recommendations and worked very hard to further improve its quality in reaction to the advice given by the MRC.

Three years before the mid-term evaluation, the last official External Review took place in December 2004. The conclusions of the 2004 External Review Committee (ERC) (Annex 20, on the secluded website) set a complete reorganisation of the institute in motion, which led to the positive mid-term review in 2007, resulting in an overall grade of very good to excellent (4,5).

The Self-Evaluation report will not only focus on the scientific quality of the research, but also on its societal relevance and impact. The report will zoom in on innovative projects and highlights in the CAPHRI research portfolio, such as activities within the framework of the Academic Collaborative Centre Limburg, the development of a vaccine against nicotine-addiction, an innovative technological monitoring and feedback tool to support patients in their self-management role, the influence CAPHRI has had on the reduction of physical restraints in nursing homes in the Netherlands, the development of a screening instrument capable of predicting prolonged sickness absence, etc. To enhance readability throughout this document 'the CAPHRI School for Public Health and Primary Care' will be simply referred to as 'the School' or 'CAPHRI'.

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<sup>3</sup> Throughout the document the acronym 'MRC' will be used when referring to the mid-term review committee who visited CAPHRI in 2007.

**A.1**

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# **Objectives and research area**

## Mission Statement

The CAPHRI School for Public Health and Primary Care focuses its research on improving public health and primary care. The aim of CAPHRI is 'to provide high-quality research and teaching focused on health care innovation, ranging from prevention to rehabilitation and leading to improvement of the population's health'.

## Research area and programmes

### Research area

CAPHRI has an extremely active research programme which covers many topics, brought together in three clusters: Primary Care, Innovation of Care and Public Health. Consistent with the School's mission of improving health, CAPHRI's staff and students are engaged in research and education. The findings of high-quality, often groundbreaking, research provide an empirical foundation from which to build and enhance (public) health practices and policies. Furthermore, the latest research findings are translated into educational practice, ensuring that the highest quality standards for (research) Master's and PhD education are met.

Health care is an exceptionally broad concept in our society. It takes place in hospitals, health care organisations and primary care, but also in the workplace and at home. When described in a model, health care can be imagined as a chain. This chain takes us from prevention of illness, through diagnosis and care, to cure and maintenance of good health. Each stage is linked to the next. CAPHRI focuses its research on each of the stages in the chain of care, but, more specifically, looks at the synergies between the stages and at integrated care pathways. This broad range of research topics requires both basic and applied research, as well as the development of new theoretical frameworks and designs to meet the complexities of primary care and public health practice.

### Programmes

CAPHRI's research is organised in research programmes. In each programme, a total of 15-30 senior investigators, post-docs, PhD students and support staff work closely together on related multidisciplinary research projects. The programme leaders are responsible for the development of each research programme, the lines of research within the programme, and the projects belonging to the  
→

programme. Research programmes that are closely related in terms of subject matter, conceptual framework, study population, type of intervention or research methodology are grouped together in three clusters: Primary Care, Innovation of Care, and Public Health. According to the MRC in 2007, the clusters were chosen well. The MRC agreed with the school's explicit strategy of avoiding the creation of an additional management layer between the programmes and the directors. The MRC also supported the programme structure and concluded that the structure leads to more flexibility and decisiveness. Furthermore they indicated that 'the small scale of the programmes enhances transparency: it will be impossible for weaker groups to hide behind the good performance of a large group. In general, people are happy with this structure and it works. Therefore it should not be altered.'

The CAPHRI policy of working with relatively small programmes was supported by research findings of the Rathenau Institute (2009) which concluded that the optimum size for a group is between 10 and 20 fte<sup>4</sup>. Groups that are smaller prove to be quite vulnerable, those that are too big exceed the maximum span of control.

The strength of the programme structure is that research is organised in a bottom-up manner, starting from the 'research work floor' unit, where enthusiastic and qualified researchers work together in a well-defined area of research. This stimulates cooperation between researchers on a daily basis, enabling a continuous exchange of expertise and mutual support in developing project proposals, performing research, educating and monitoring the progress of young researchers as well as scouting research talent. This bottom-up strategy also means that researchers and programmes can be flexible and can anticipate future developments. From a managerial point of view, a flexible structure means that new promising programmes can be

initiated and existing programmes can be stopped if they are not scientifically successful. The criteria are described in detail in the 'CAPHRI programme management policy' (Annex 5). The scientific output, earning power, programme policy, new projects and young talents within the programmes are evaluated by the director of the school along with heads of departments and programme leaders in planning and control sessions held twice a year.

The Primary Care Cluster currently includes 7 programmes, while the Innovation of Care Cluster has 4 and the Public Health Cluster 6. Annex 4A presents a schematic overview of CAPHRI programmes per cluster, in 2010<sup>5</sup>. There is considerable interaction between the programmes. The School council, which meets 6 times a year, provides an opportunity for all programme leaders and heads of departments to exchange ideas. The annual CAPHRI Research day is another, popular and partially informal, way for programmes to interact with each other.

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<sup>4</sup> Van der Weijden I, Verbree M, Braam R, Besselaar P van den (2009), *Management and performance of research groups* - Abstract in English, Den Haag; Rathenau Instituut; (NL: SciSA rapport 0913A).

<sup>5</sup> Annex 4.B presents the CAPHRI programme structure in 2007. Comparing annexes 4.A and 4.B illustrates the dynamic nature of the programme structure.

## Objectives

The school is proud of its high quality and wants to consolidate this by making sure that the conditions are perfect for the researchers to excel in their field, both as members of a research group and as individual researchers. CAPHRI cherishes its top talents and puts a lot of effort into identifying, stimulating, and supporting its 'high potentials' and most talented junior researchers. The high-quality Research Master programme is a strong asset in this regard. CAPHRI wishes to enhance the synergy between its Master education and its research programme. CAPHRI aims to strengthen and further develop as a Centre of Excellence<sup>6</sup>. On an international level, CAPHRI aims to develop and optimise strategic alliances.

Furthermore, in a dynamic and pressurised health care context, where the demands of society regarding quality, transparency, and accountability of care are high, and where public health activities are of increasing importance, CAPHRI is well-equipped and flexible enough to influence and, even shape, health care policy and to contribute to agenda-setting on a local, regional and national level.

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<sup>6</sup> The Centre of Excellence CAPHRI was financed by the 'portfolio means' of the Maastricht University Executive Board, following the advice of the Faculty Board.

# **Composition**

## Total number of employees

In 2009, the total number of CAPHRI staff was 209 fte, 174 fte scientific staff (consisting of 59 fte tenured staff, 40 fte non-tenured staff and 75 fte internal PhD candidates officially employed as 'PhD students') and 34 fte support staff. The 'external' PhD candidates, who are registered as PhD students but are not officially employed by CAPHRI (as they are working at institutions elsewhere), are not included in the table on the next page. For a complete overview of the external PhD candidates see chapter A.5.2. (table 6.A).

The overview of the total number of CAPHRI employees between 2004 and 2009 in table 1 shows a reduction in the number of tenured and non-tenured staff over the first three years, which is a consequence of the decrease in direct funding by the former Faculty of Medicine in 2003. This led to a reduction of staff from most departments participating in the school. After 2006, CAPHRI grew again as entire new groups, including tenured staff, were added to CAPHRI, in a large part due to the increased number of acquired grants.

CAPHRI has not stopped growing. According to the latest figures, in September 2010, CAPHRI employed 190 fte scientific staff, including 89 fte internal PhD students. Furthermore there are 37 fte support staff. The number of external PhD candidates has also grown: reaching 106 in September 2010.

**Table 1 → page 20**

## Internal and external sources of financing

Table 2 clearly shows that year after year again more than half of CAPHRI's scientific staff is being paid from money acquired through research grants and contract research. In 2009, for example, research grants paid for 22% of the staff, contract research paid for 34%, and the remaining 44% was paid for by direct funding. In the past years, 20-25% of all scientific staff was paid by prestigious grants, such as NWO, KNAW and ESF.

**Table 2 → page 21**

# Table 1

## Research staff (fte) at institutional and cluster level<sup>(1)</sup>

	2004	2005	2006	2007	2008	2009
<b>CAPHRI</b>						
Tenured staff	58	52	44	44	47	59
Non-tenured staff	61	47	50	48	39	40
PhD-students	61	51	48	53	58	75
<b>Total research staff</b>	<b>179</b>	<b>151</b>	<b>141</b>	<b>145</b>	<b>144</b>	<b>174</b>
Support staff	38	28	24	31	29	34
Visiting fellows	-	-	-	-	-	-
<b>Total staff</b>	<b>216</b>	<b>179</b>	<b>166</b>	<b>177</b>	<b>173</b>	<b>209</b>
<b>Cluster 1: Primary Care</b>						
Tenured staff	24	20	21	18	19	20
Non-tenured staff	10	6	10	10	8	10
PhD-students	17	10	10	15	16	25
<b>Total research staff</b>	<b>51</b>	<b>37</b>	<b>40</b>	<b>43</b>	<b>43</b>	<b>55</b>
<b>Cluster 2: Innovation of Care</b>						
Tenured staff	18	16	14	14	15	16
Non-tenured staff	25	21	27	24	25	19
PhD-students	20	18	18	11	11	23
<b>Total research staff</b>	<b>62</b>	<b>54</b>	<b>60</b>	<b>49</b>	<b>51</b>	<b>57</b>
<b>Cluster 3: Public Health</b>						
Tenured staff	16	16	9	12	14	23
Non-tenured staff	26	20	13	14	6	12
PhD-students	24	24	20	28	30	27
<b>Total research staff</b>	<b>66</b>	<b>60</b>	<b>41</b>	<b>53</b>	<b>50</b>	<b>62</b>

Note 1 To enhance readability, the figures have been rounded off to the nearest whole number (of Ftes)

# Table 2

## Funding at school and cluster level

	2004		2005		2006		2007		2008		2009	
CAPHRI	fte	%	fte	%	fte	%	fte	%	fte	%	fte	%
<b>Funding</b>												
Direct funding (2)	78	43	72	48	59	42	64	44	65	45	77	44
Research grants (3)	43	24	36	24	32	23	29	20	34	24	37	22
Contract research (4)	58	33	42	28	50	35	52	36	45	31	60	34
<b>Total funding</b>	<b>179</b>	<b>100</b>	<b>151</b>	<b>100</b>	<b>141</b>	<b>100</b>	<b>145</b>	<b>100</b>	<b>144</b>	<b>100</b>	<b>174</b>	<b>100</b>
<b>EXPENDITURE</b>	<b>K€</b>	<b>%</b>	<b>K€</b>	<b>%</b>	<b>K€</b>	<b>%</b>	<b>K€</b>	<b>%</b>	<b>K€</b>	<b>%</b>	<b>K€</b>	<b>%</b>
Personnel costs	9,710	72	9,278	69	8,570	71	8,960	71	10,846	76	12,987	83
Other costs	3,860	28	4,235	31	3,563	29	3,725	29	3,448	24	2,721	17
<b>Total expenditure</b>	<b>13,570</b>	<b>100</b>	<b>13,513</b>	<b>100</b>	<b>12,133</b>	<b>100</b>	<b>12,685</b>	<b>100</b>	<b>14,294</b>	<b>100</b>	<b>15,708</b>	<b>100</b>
<b>CLUSTERS</b>	<b>fte</b>	<b>%</b>	<b>fte</b>	<b>%</b>	<b>fte</b>	<b>%</b>	<b>fte</b>	<b>%</b>	<b>fte</b>	<b>%</b>	<b>fte</b>	<b>%</b>
<b>Funding</b>												
Primary Care	51	28	37	24	40	29	43	29	43	30	55	32
Innovation of Care	62	35	54	36	60	42	49	34	51	35	57	32
Public Health	66	37	60	40	41	29	53	37	50	35	62	36
<b>Total Funding</b>	<b>179</b>	<b>100</b>	<b>151</b>	<b>100</b>	<b>141</b>	<b>100</b>	<b>145</b>	<b>100</b>	<b>144</b>	<b>100</b>	<b>174</b>	<b>100</b>

Note 2 Direct funding by Maastricht University

Note 3 Research grants obtained in national and international scientific competition (e.g. grants from NWO, KNAW and ESF)

Note 4 Research contracts for specific research projects obtained from external organisations, such as industry, governmental ministries, the European Commission and charity organisations

# Research environment and embedding

CAPHRI is one of five schools in the Faculty of Health, Medicine & Life Sciences (FHML) which are embedded within the Maastricht University Medical Centre+ (MUMC+, consisting of FHML and the Academic Hospital Maastricht azM). CAPHRI coordinates research and Master's education activities from eleven FHML Departments: General Practice, Epidemiology, Methods and Statistics, Health Education and Health Promotion, Health Organisation Policy and Economics, Health Ethics and Society, Health Care and Nursing Science, Orthopaedics, Rehabilitation, Social Medicine, and International Health.

## Maastricht UMC+

Maastricht UMC+ (MUMC+) was founded to reflect a broad and integrated vision, in which health care covers a continuum between health and sickness, and is concerned not only with diagnosis, treatment and recovery, but also with the prevention of ill health and with health promotion. Of all Dutch university medical centres, Maastricht UMC+ is the one with the broadest orientation. The '+' added to the name is an expression of this broad and integrated vision. Thus, Maastricht UMC+ is a recognised leader for primary care and public health, as well as a knowledge centre in the field of biomedical science. Maastricht UMC+ is particularly well-known for its expertise in the areas of health risks, the prevention of diseases, diagnostic and prognostic research in primary care and public health, the promotion of healthy behaviour, and the redesign of health care services. As such, Maastricht UMC+ is unique among Dutch university medical centres. CAPHRI plays a central part in this. Without CAPHRI the MUMC would not have its '+'.<sup>7</sup>

### Multidisciplinary chains for care, education, training and research (ZKO)

The central underlying concept of Maastricht UMC+ is that of a chain, which plays a leading role in the structuring of multidisciplinary 'chains for care, education, training and research' (the 'ZKOs'), with interlinking research activities in common areas, several shared research facilities, and a collective educational institute. In these ZKOs, specialised treatment is provided in key areas of medical care.

Five ZKOs have been defined<sup>7</sup>, delineating the areas in which Maastricht UMC+ has special expertise. Together, these 5 ZKOs form the leading principle in the Maastricht UMC policy. Four of the five ZKOs, which are in the areas of cardiovascular diseases, oncology, chronic diseases and mental health and neuroscience, focus on disorders which have very serious health implications for many people. There is already a great deal of leading expertise present at the university hospital and faculty in the area of fundamental research and therapy of these disorders.

The fifth ZKO 'Public Health and Primary Care' functions as an independent knowledge centre whilst operating at the same time as a linking profile, contributing to the activities carried out in each of the other ZKOs (see Figure 1). CAPHRI and the Integrated Health Care RVE<sup>8</sup> have joined forces in this fifth ZKO, which will focus on Primary Care, Innovation of Care and Public Health. Strong interaction between research staff, health care providers and key organisations in a regional context has always been an important asset of both CAPHRI and the Integrated Health Care RVE. The Public Health and Primary Care ZKO will combine efforts and will function as an organisation that links Maastricht UMC+ with a variety of health care providers and other important stakeholders outside the UMC's walls, for example, general practitioners, nursing homes, municipal health departments, public health care nurses, and home care agencies.

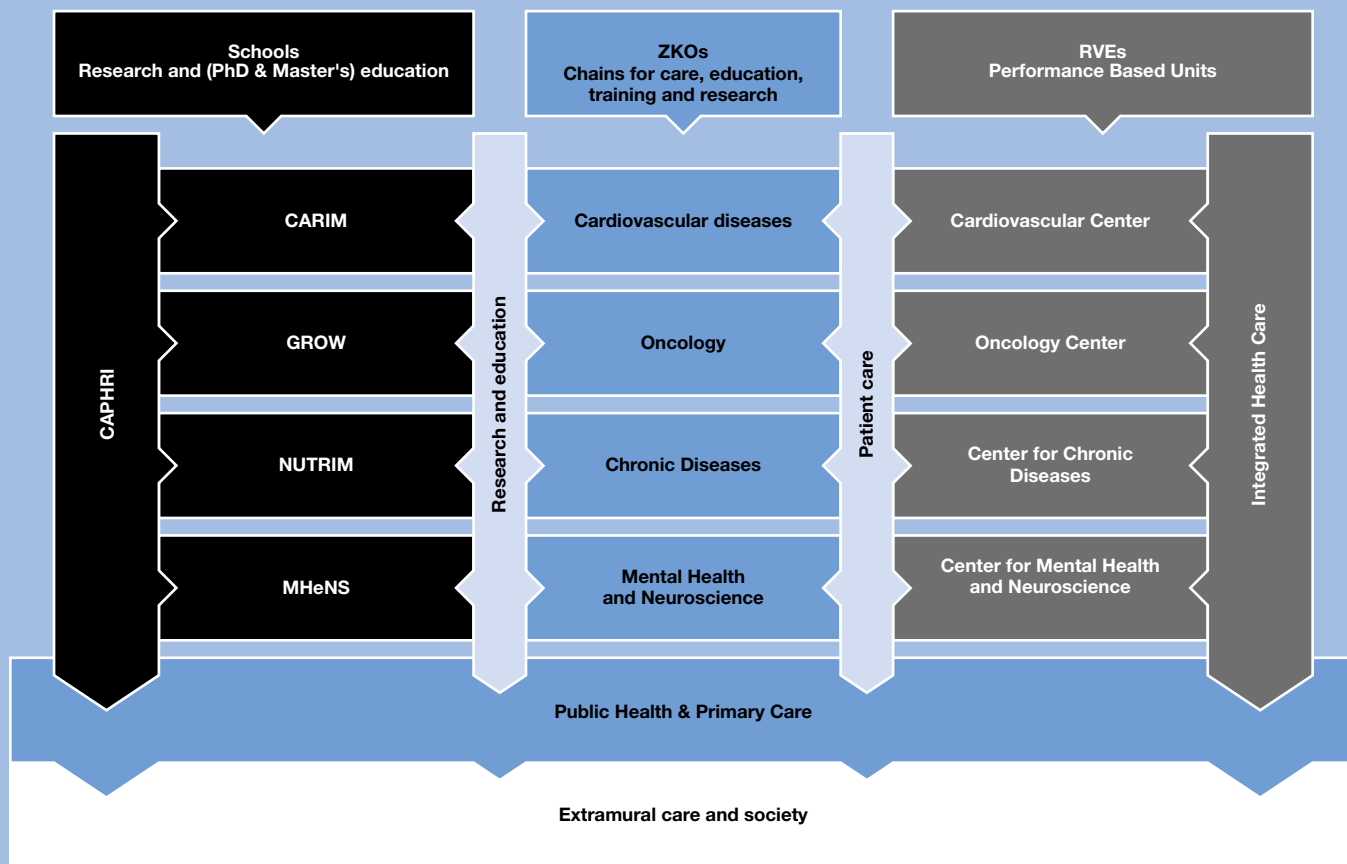
**Figure 1 → page 24**

<sup>7</sup> Strictly speaking, all ZKOs (including the ZKO 'Public Health and Primary Care') are still to be established officially.

<sup>8</sup> 'Performance Based Unit' (*Resultaat Verantwoordelijke Eenheid* Dutch acronym: RVE): a department in the hospital. Maastricht UMC+ has 11 RVE's.

# Figure 1

## Schematic representation of the 5 ZKOs in Maastricht UMC+



## A.3.2

Figure 1 illustrates the cooperation between graduate schools and RVEs in the five Maastricht UMC+ ZKOs. The special linking characteristic of the Public Health and Primary Care ZKO is demonstrated by drawing it not only horizontally (in blue), but also vertically, when it comes to the CAPHRI school (in black) and the Integrated Health Care RVE (in grey), demonstrating the linkage with the work of the other ZKOs. One could say that Public Health and Primary Care is embracing the other ZKOs and connecting the Maastricht UMC+ directly with extramural and transmurial care and the community. This linkage is an excellent example of the distinctive profile adopted by Maastricht UMC+: an approach which does not limit itself to the clinical picture alone, but adopts an integrated approach to the entire spectrum of health and disease. The research area of CAPHRI is by no means limited to the MUMC+. CAPHRI researchers work in close cooperation with other health care institutions, such as nursing homes, rehabilitation centres, audiology centres, psychiatric hospitals, primary care and public health organisations.

### National and international positioning

A reflection on the current position of CAPHRI in comparison to its main peers<sup>9</sup> in a national and international context is not a straightforward task. The combination of expertise that CAPHRI offers is fairly unique, both within the Netherlands and internationally. To be able to paint a picture of CAPHRI's national and international position, we will approach this subject from two angles. First, we will discuss our position and profile in a subjective way, comparing CAPHRI to institutes and schools that are seen by CAPHRI staff as our most important peers (as mentioned in the SWOT-analyses). Secondly we will look at some of the available comparative data.

#### **CAPHRI's position, compared to its main peers**

As was suggested by the SEP protocol, as part of SWOT analysis, all CAPHRI programme leaders were invited to mention their reference point(s) in the Netherlands and abroad. Annex 6 gives an overview of CAPHRI's main national and international peers. Not surprisingly, in the Dutch context, three peers were mentioned the most often: The EMGO Institute for Health and Care Research EMGO+ (VU University Medical Centre); the Nijmegen Centre for Evidence Based Practice, NCEBP (UMC St Radboud Nijmegen) and NIVEL (the Netherlands Institute for Health Services Research). Like CAPHRI, these institutes are renowned for their high-quality research in the area of  
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<sup>9</sup> In the SEP-protocol the term *competitors*, or *partner-organisations* is used. We however prefer to use the word *peers* as we do not like to see these organisations as our *competitors* and the term *partner-organisations* is not correct for all organisations mentioned here.

primary health care. This was the reason for CAPHRI<sup>10</sup> to initiate the Netherlands School of Primary Care Research (CaRe), in 1994, which was acknowledged by the KNAW as a research school in 1995, and accredited again in 2000 and 2006. CAPHRI is the founding participant of CaRe and the current coordinator. The other participating institutes are NCEBP, NIVEL and (part of) EMGO+. CAPHRI is still the largest partner in CaRe and is responsible for nearly 50% of the staff employed. The objective of the collaboration within CaRe is to perform high quality applied and strategic research in primary care and integrated care and to train researchers for this purpose. In its last external review the CaRe Research School scored a 5 (on a scale from 1 to 5; 'excellent'). Although there is an obvious overlap between the domains of study and strong cooperation, there are also differences in foci between the four partners. EMGO has strong programmes in the area of metabolic diseases and mental health, for example, whereas this area is not a research focus at CAPHRI. NIVEL is a national institute for policy-oriented health services research and its main domain is applied health services research. CAPHRI's research has a strong societal impact as well, but is geared more towards the academic world and aims at a high-quality triangular interaction between research, education and patient-centred care.

### **National positioning: bibliometric analysis**

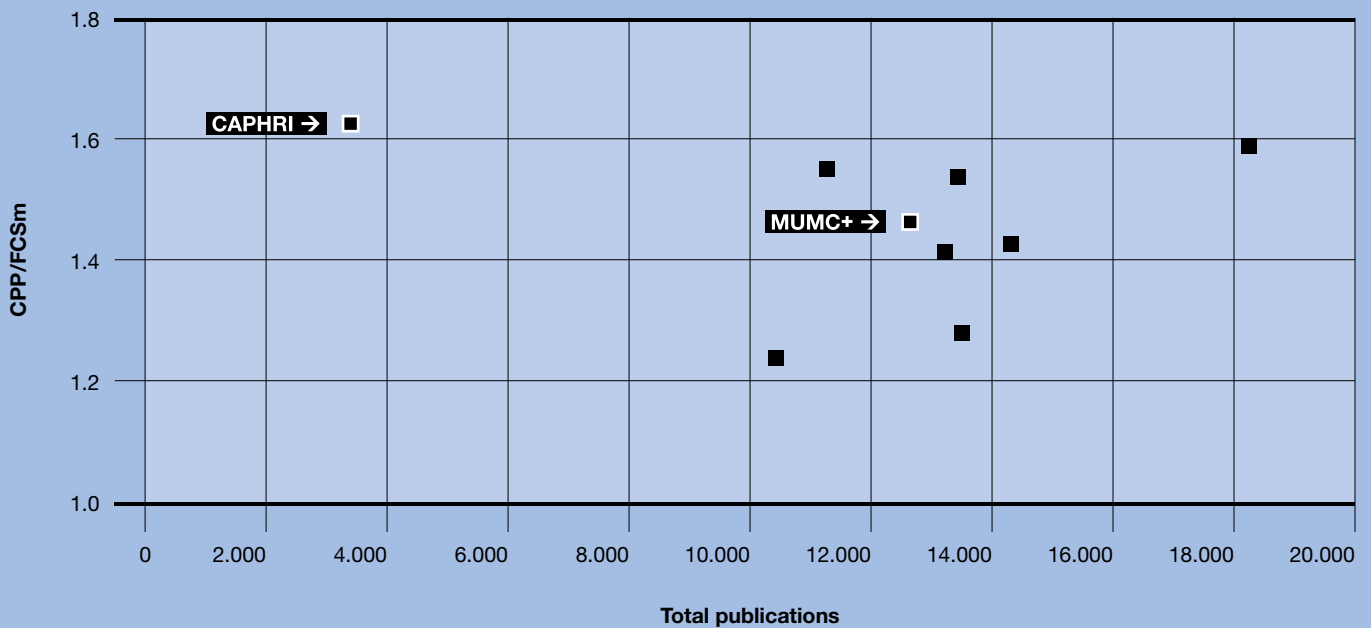
In the Netherlands, since 1998 the Centre for Science & Technology Studies (CWTS) has performed an annual bibliometric study on the research conducted in Dutch academic medical centres. The bibliometric study compares the performance of the eight academic medical centres over the period 1998 – 2008<sup>11</sup>. The CPP/FCSm is considered the 'crown indicator'. It relates the measured impact of a research group to a worldwide, field-specific reference value and is, therefore, a powerful internationally standardised impact indicator. In this comparison, Maastricht UMC+ as a whole has a CPP/FCSm of 1.48 (implying that publications have been cited 48% more often than the world average of publications in the same research domain), which ranks them fourth in the Netherlands. CAPHRI's CPP/FCSm score lies at 1.63 for the same period. This is the highest score of all Maastricht UMC+ Schools. The CPP/FCSm scores of Maastricht UMC+, other Dutch UMCs and CAPHRI are compared in Figure 2.

<sup>10</sup> CAPHRI was established in 2003 following a merger between the research institutes ExTra and HEALTH. In 1994, ExTra and HEALTH had founded CaRe.

<sup>11</sup> Bibliometric study on Dutch academic medical centres 1998 – 2008 (CWTS, November 2009).

# Figure 2

**Journal Impact compared to world field average 1998-2008  
comparing Dutch UMC's and CAPHRI.**



### **International position according to international impact scores**

When looking at international impact scores, Dutch research worldwide ranks third, after Switzerland and the United States. According to the VSNU website<sup>12</sup>, 3% of all citations worldwide refer to publications from Dutch authors. The impact of Dutch articles is also still growing, whereas the impact of Swiss and American articles is decreasing. The overall Dutch impact score CPP/FCSm (2003 – 2006) was 1.34. Bearing in mind that CAPHRI, currently has a CPP/FCSm score of 1.63 one can conclude that CAPHRI is doing very well in the international arena.

According to the prestigious Times Higher Education (THES) ranking, comparing institutions in clinical medicine, Maastricht University ranks 18th in Europe and 85th in the world. In the recent QS World University Rankings, Maastricht University is among the top ten of the most international universities in the world. Maastricht University ranks 111th on the world university ranking list.

### **A reflection on CAPHRI's position in the international arena according to our visiting professors**

To get an indication of how CAPHRI is perceived internationally, we have asked our visiting professors to comment on their impression of CAPHRI's position in the international scientific arena. In addition, they were asked to highlight the areas they see as strong points, but also, to indicate aspects of CAPHRI's work that could be improved.

#### **Prof. Robert West, University College London, UK:**

'CAPHRI is without doubt one of the world's leading centres in public health and primary care research. The quality of the work is outstanding. In the areas with which I am familiar a major strength is the integration of theoretical and applied research. This is particularly evident in the programmes aimed at helping people to adopt healthier lifestyles. I would be keen to see further development of this area involving large epidemiological studies, pragmatic randomised trials of interventions and experimental proof-of-concept studies aimed at advancing intervention design'.

#### **Prof. Aziz Sheikh, University of Edinburgh, UK:**

'CAPHRI has over recent years emerged as an internationally respected centre of excellence in the fields of primary care and public health research. Its particular strength lies in bridging the all-important translation gap between basic research and the development and delivery of safe and cost-effective models of care for those at risk of developing and with long-term conditions. With its combination of high calibre senior investigators and a critical mass of talented and ambitious junior academics, I believe CAPHRI has the foundations in place to play a very important role in tackling some of the major issues facing healthcare systems globally.'

<sup>12</sup> <http://www.vsnunl.nl/web/show/id=89744/langid=43#>

**Prof. Glyn Elwyn, University of Cardiff, UK:**

‘The breadth of CAPHRI’s work is very impressive indeed as well as the total publications and PhD student numbers. I note that there are many international level researchers in the centre and many innovative research interests that are at the cutting edge of new developments in care, such as the use of near patient diagnostic testing and involving patients in decisions and self-care.’

**Internationalisation policy**

CAPHRI puts a lot of effort into a strong internationalisation policy, both in terms of research and education. The recently launched Master’s programmes ‘European Public Health’ (EPH) and ‘Global Health’ are good examples of the realisation that health and health care research are international in scope. The other way around, it gives an indication of how the internationalisation of health and health care research is translated into CAPHRI priorities. CAPHRI participates in over 25 European and other international networks and projects and is currently the coordinating partner of three of them. Extensive cooperation in the area of research exists between CAPHRI and partners in Europe, the USA and elsewhere in the world (see Annex 7). The Public Health Cluster is involved in large scale collaboration projects in the developing world, in countries such as El Salvador, Mozambique, Indonesia, Vietnam and South Africa. Furthermore CAPHRI attracts PhD candidates from all over the world (for example Sudan, South-Africa, Lebanon, Romania, Ghana, Nigeria, Kenya, Tanzania, Colombia, USA, Saudi-Arabia and several European countries). There is a Memorandum of Understanding (MoU) with the South-African Medical Research Council, which has already led to 10 PhD projects. Another part of the internationalisation policy is the further development and optimisation of strategic alliances with top quality international research groups. CAPHRI aims at further strengthening international cooperation via PhD student exchanges, post-docs and visiting professorships. For example, a number of talented PhD students received a CAPHRI grant to go abroad as part of the initiative to stimulate experience abroad for talented young researchers.

### **Guest researchers**

The appointment of visiting professors with an excellent track record is also an important part of CAPHRI's internationalisation policy. The presence of visiting professors stimulates an international orientation of the (research) Master's curricula and the PhD training programme, by contributing international knowledge and skills, exposing the students and graduates to new insights, and inspiring the students to look beyond their own countries' borders. In 2009 CAPHRI began a policy of appointing three visiting professors each year for a period of two years using Centre of Excellence funds. Each appointment can be prolonged twice. Table 3 gives an overview of CAPHRI visiting and honorary professors during the period of the self-evaluation (2004 – 2009).

# Table 3

## Visiting and Honorary Professors, CAPHRI

	Name	Cluster	Period	Home university
1	Aziz Sheikh	Primary Care	2009 -	University of Edinburgh, UK
2	John A Eisman	Primary Care	2010 -	The Garvan Medical Research Institute, Sydney, Australia
3	Glyn Elwyn	Innovation of Care	2010 -	Cardiff University, UK
4	Robert West	Public Health	2009 -	University College London, UK
5	Scott Leischow	Public Health	2010 -	University of Arizona, Tucson, USA
6	Kay Bartholomew	Public Health	2005 - 2010	University of Texas Health Science Center, Houston, USA
7	David G. Kleinbaum	Primary Care	2005 - 2008	Emory University Rollins School of Public Health in Atlanta, Georgia, USA
8	Guy Parcel	Public Health	Until 2005	University of Texas Health Science Center, Houston, USA

# Quality and scientific relevance

According to the mid-term review committee (MRC) in 2007, ‘...the CAPHRI School for Public Health and Primary Care has come a long way since the last external review in December 2004. The school comes across as a strong institute with a very good performance’. In terms of assessment ratings, the overall score was ‘very good to excellent’ (official rating: 4 - 5). ‘Compared to the situation three years ago at the time of the ERC, the organisational structure has improved considerably. The new managerial structure has laid the foundation for further improvement of the school’s overall scientific quality’ (See Annex 2). The overall evaluation had improved following the earlier official external review in December 2004, when the official external review committee (ERC) had rated CAPHRI’s overall academic reputation in the period 1997 – 2003 as very good (official rating: 4). Some divisions were stronger than others, but with regard to quality of work, productivity in terms of publishing, bibliometric impact and number of PhDs, CAPHRI’s work was clearly of a high international standard (See Annex 20).

Perhaps the most important indicator for scientific success is the bibliometric analysis performed by CWTS. As was explained in paragraph 3.2, the CAPHRI CPP/FCSm score of 1.63 (implying that CAPHRI publications have been cited 63% more often than the world average) is the highest score of all Maastricht UMC+ schools.

The high bibliometric score and the positive review of the MRC in 2007 led to the designation of CAPHRI as an International Centre of Excellence by the Maastricht University Executive Board and the accompanying investment of nearly €4 million to further develop the CAPHRI Centre of Excellence.

CAPHRI’s output, in terms of publications, PhD graduates and earning power, is high. The number of publications in peer-reviewed SCI/SSCI journals has increased steadily since 2004: it went up from 396 in 2004, to 602 in 2009 (see Figure 3 on the next page). To CAPHRI, not only the quantity, but

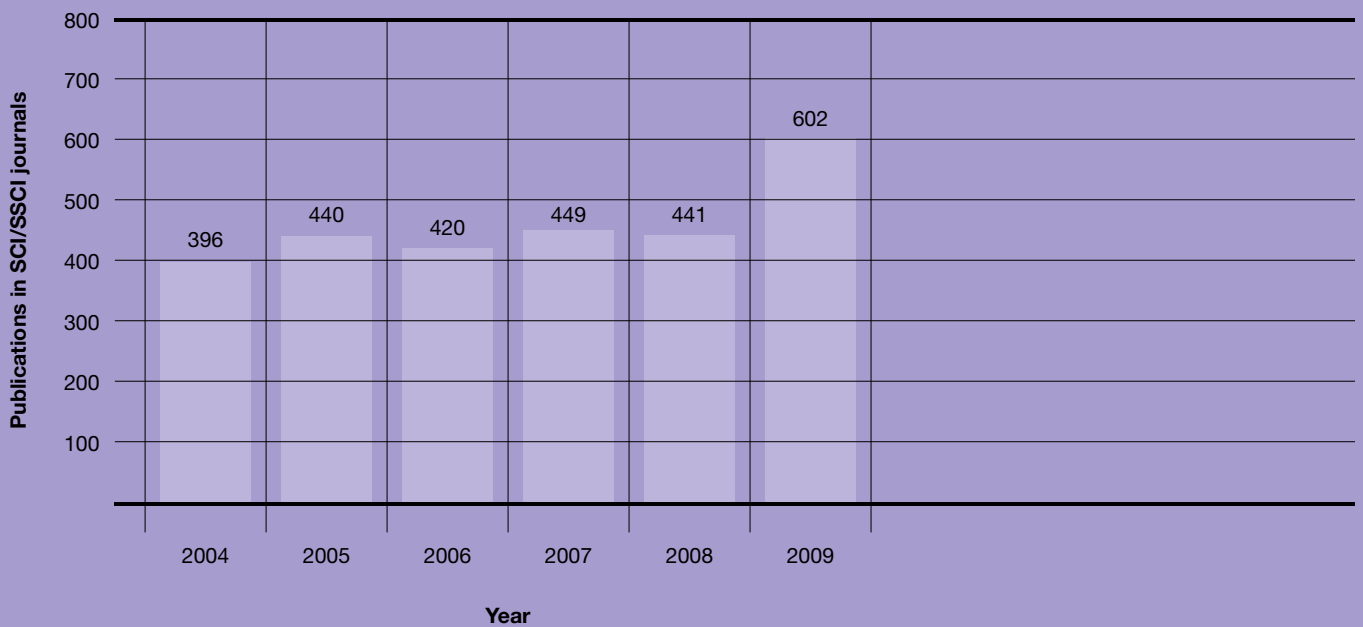
even more so the quality of the publications is important. CAPHRI aims to publish in the highest ranking journals relevant to the public health and primary care discipline. In the period 2006 – 2009, on average more than half of the publications were published in the top 25% peer-reviewed journals relevant to the discipline. Between 22% and 33% was even published in the top 10% peer-reviewed journals. To give some examples from the last three years: in 2007 CAPHRI published 6 articles in prestigious journals such as *the Lancet*, *Nature Medicine* and *the New England Journal of Medicine*, in 2008 CAPHRI published 7 articles in *The Lancet*, *Nature* and *JAMA*, and in 2009, six articles were published in *The Lancet*, *Science* and *Nature Genetics*. These journals are some of the highest ranking scientific magazines in the world. In 2009, two CAPHRI post-docs were interviewed by *Science*. Figure 4 gives a clear overview in the increase in top 10% publications in peer-reviewed journals.

CAPHRI has on average produced more than 30 PhD theses per year in the past six years, of which several with the distinction ‘cum laude’. CAPHRI is home to the highest scoring Research Master’s in the Netherlands in its field; in the special Elsevier issue ‘Studeren’ (2009) the HSRM was ranked first, with a score of 8.2.

In the past years, CAPHRI obtained more than €8 million grant funding each year, More than 50% of CAPHRI’s scientific staff is paid for by external funding and almost 25% is funded by ZonMw and NWO. For examples of granted applications, see Annex 8. In 2008, twelve EU grants were obtained by CAPHRI and a PhD graduate was rewarded the NWO Rubicon grant for talented researchers. In 2009, ten EU grants were obtained, three of which will be coordinated by CAPHRI, and once again a CAPHRI PhD graduate received the NWO Rubicon grant. Also, two ZonMw Pearls were received by young CAPHRI researchers. In 2010 two VENI grants were obtained in the NWO Innovational Research Incentives Scheme (*Vernieuwingsimpuls*).

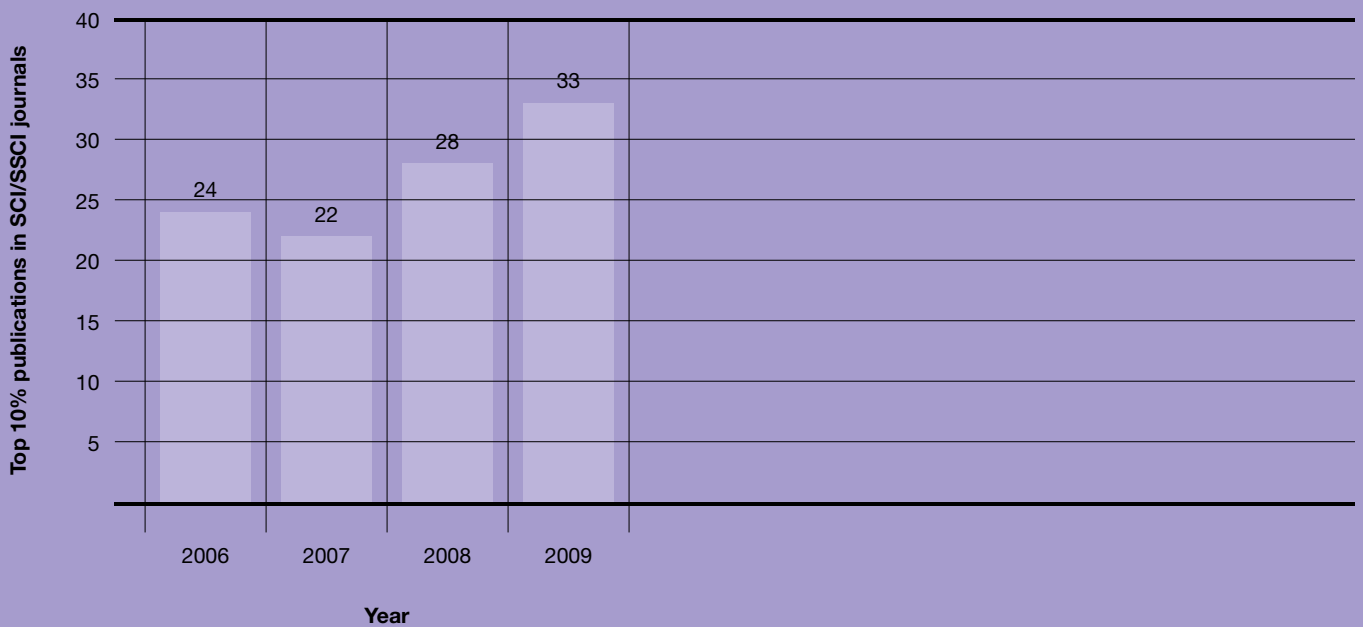
# Figure 3

## Trend in quantity of CAPHRI publications



# Figure 4

## Trend in quality – top 10% publications



The data for 2004 and 2005 are not included in Figure 4 as they are not fully reliable.

**A.5**

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# Output

## Number of publications

2009 was a very successful year for CAPHRI concerning the number of publications. Overall CAPHRI had 1139 publications, of which 864 were refereed articles. 602 of those articles were published in SCI-SSCI Journals (with impact factor). Table 4 presents the research output at School and Cluster level. Publications aimed at the general public and other research output, such as abstracts, editorships, lectures and media-appearances are not included in this table, as they are of a different nature than the scientific articles included. Instead, they are separately scored as part of the societal impact indicators (Chapter A.8, and Annex 16).

**Table 4 → page 38**

## Number of PhD students

### Total number of PhD students

According to the latest figures, as of September 2010, CAPHRI has 125 internal PhD students (89fte) and 106 external PhD candidates. The latter concerns PhD candidates who are employed at institutions other than CAPHRI, in the Netherlands or abroad, but are supervised by CAPHRI senior researchers. All together, there are 231 PhD candidates conducting research under the supervision of CAPHRI staff at this moment. 50% of these PhD students are non-Dutch, which illustrates CAPHRI's truly international spirit.

Table 5 illustrates the number of internal PhD students with a temporary appointment, since 2002, formerly known in the Netherlands as 'AIOs'. Table 6.A gives the number of external PhD candidates who do not have employee status and who receive external funding, but who conduct research under CAPHRI's authority and supervision. Table 6.B looks at the PhD graduations per year, since 2002, and shows how many of the PhD graduates were internal and how many were external candidates. The fact that there are so many external PhD candidates, and that the figure keeps increasing, shows that CAPHRI is becoming renowned for its PhD studies, both in the Netherlands and abroad. It is also an indication of the effectiveness of the CAPHRI internationalisation policy.

**Table 5 → page 40**

**Table 6.A → page 41**

**Table 6.B → page 41**

# Table 4

## Research output at School level<sup>13</sup>

	2004	2005	2006	2007	2008	2009
<b>CAPHRI</b>						
Refereed articles with impact factor (SCI-SSCI)	396	440	420	449	441	602 (a)
Other refereed articles	236	247	217	244	198	262
Books , book chapters, conference papers	216	165	102	122	171	123
PhD theses	27	36	21	29	42	27
Professional publications (b)	89	101	105	102	113	125
<b>Total publications</b>	<b>964</b>	<b>989</b>	<b>865</b>	<b>946</b>	<b>965</b>	<b>1139</b>

Note a This figure includes the editorial materials (42 in total). Thus, this figure consists of 560 research articles and 42 editorial materials in peer-reviewed SCI-SSCI journals. Since 2009, the faculty has started to make a distinction between research articles and editorial materials

Note b Publications aimed at professionals in the public and private sector (professionele publicaties)

<sup>13</sup> Please note that the sum of publications in the clusters may be more than the total number of CAPHRI publications, which is due to the fact that in multidisciplinary projects, with authors from more than one cluster, the article is registered twice or even three times, to do justice to the work that was done in each cluster. Obviously, at the school level, each article is counted only once.

Table 4

## Research output at Cluster level

	2004	2005	2006	2007	2008	2009
<b>Cluster 1: Primary Care</b>						
Refereed articles with impact factor (SCI-SSCI)	214	258	229	223	195	337
Other refereed articles	103	106	120	119	80	127
Books , book chapters, conference papers	84	39	40	29	49	78
PhD theses	8	16	11	10	15	8
Professional publications (b)	13	31	27	26	4	13
<b>Total publications</b>	<b>422</b>	<b>450</b>	<b>427</b>	<b>407</b>	<b>343</b>	<b>563</b>
<b>Cluster 2: Innovation of Care</b>						
Refereed articles with impact factor (SCI-SSCI)	107	109	131	138	163	153
Other refereed articles	89	114	82	91	74	72
Books , book chapters, conference papers	73	75	44	43	85	22
PhD theses	16	10	3	15	17	9
Professional publications (b)	51	47	70	76	60	67
<b>Total publications</b>	<b>336</b>	<b>355</b>	<b>330</b>	<b>363</b>	<b>399</b>	<b>323</b>
<b>Cluster 3: Public Health</b>						
Refereed articles with impact factor (SCI-SSCI)	102	93	122	171	179	177
Other refereed articles	52	40	43	58	62	87
Books , book chapters, conference papers	60	57	26	64	50	36
PhD theses	3	10	8	4	11	11
Professional publications (b)	29	26	17	28	43	50
<b>Total publications</b>	<b>246</b>	<b>226</b>	<b>216</b>	<b>325</b>	<b>345</b>	<b>361</b>

# Table 5

## Internal PhD Candidates (AIO's)

Enrolment				Success rates					
Starting year	Enrolment Male	Enrolment Female	Total (M+F)	Graduated within 4 years	Graduated within 5 years	Graduated within 6 years	Graduated within 7 years	Not yet finished (01-11-10)	Discontinued (01-11-10)
2002	0	15	15	3 / 20 %	1 / 7 %	5 / 33 %	-	3 / 20 %	3 / 20 %
2003	1	8	9	0 / 0 %	2 / 22 %	3 / 34 %	1 / 11 %	1 / 11 %	2 / 22 %
2004	7	8	15	2 / 13 %	6 / 40 %	3 / 20 %	-	2 / 13 %	2 / 13 %
2005	1	7	8	1 / 13 %	1 / 13 %	-	-	4 / 50 %	2 / 25 %
2006	3	11	14	3 / 22 %	1 / 7 %	-	-	8 / 57 %	2 / 14 %
2007	3	10	13	-	-	-	-	10 / 77 %	3 / 23 %
2008	7	15	22	2 / 9 %	-	-	-	19 / 86 %	1 / 5 %
2009	7	18	25	-	-	-	-	25 / 100 %	0 / 0 %
<b>Total</b>	<b>29</b>	<b>92</b>	<b>121</b>	<b>11 / 9 %</b>	<b>11 / 9 %</b>	<b>11 / 9 %</b>	<b>1 / 1 %</b>	<b>72 / 60 %</b>	<b>15 / 12 %</b>

Table 6.A

Table 6.B

### External PhD candidates, from 2004-2009

Starting year	Number of external PhD candidates
2004	46
2005	45
2006	44
2007	66
2008	66
2009	94

### Number of CAPHRI PhD-graduations and percentage internal and external candidates

Starting year	PhD-graduations	Employed by CAPHRI		External candidates	
		Number	Percentage	Number	Percentage
2002	22	10	47%	12	53%
2003	24	9	36%	15	64%
2004	27	9	33%	18	67%
2005	36 (37 <sup>a</sup> )	16	44%	20	56%
2006	21	7	34%	14	66%
2007	29	3	10%	26	90%
2008	42 (47 <sup>a</sup> )	18,5	44%	23,5	56%
2009	27 (29 <sup>a</sup> )	8,5	32%	18,5	68%
<b>Total</b>	<b>226</b>	<b>80</b>	<b>35%</b>	<b>146</b>	<b>65%</b>

Note a Including the theses that are shared with other Schools

CAPHRI has produced on average more than 30 PhD theses per year in the past six years, with a peak of 47 PhD graduations in 2008.

**Thesis completion**

CAPHRI has produced on average more than 30 PhD theses per year in the past six years, with a peak of 47 PhD graduations in 2008 (five of these are shared with other schools; 42 persons are labelled to CAPHRI). On average 65% of the PhD graduates are external PhD candidates. See annex 13 for a complete overview.

**Discontinuation rates and measures taken:  
CAPHRI's PhD Quality System PhD TRACK**

Some discontinuation of individual PhD studies can always be expected, but it should be a smaller percentage of students than the average discontinuation rate in CAPHRI before 2008, which was between 13 and 25% (See table 5). CAPHRI aims at a situation where discontinuation happens exclusively in the first year of the PhD study. After the first year the discontinuation rate should be lower than 5%. In order to achieve this aim, in 2008, CAPHRI introduced an innovative coaching and mentor system with an individual approach to students, called 'PhD TRACK'. The PhD TRACK system aims to monitor progress and increase the quality of coaching and supervision. It is a web-based application, built by CAPHRI with the collaboration of a specialised IT company in the Netherlands. The three main tasks of this system are: to register all internal and external CAPHRI PhD students, to provide a transparent means of communication between PhD students and their supervisors, and to monitor the progress of PhD projects and the quality of their supervision. PhD TRACK has been made in order to help reduce the average time taken for thesis completion and to reduce discontinuation rates, by enabling a timely detection of problems through active monitoring the progress of PhD students and the quality of PhD research project supervision. Furthermore, it makes it possible to follow the process of the external PhD candidates as good as the process of the internal PhD candidates, whereas up until recently, the external PhD candidates were very difficult to monitor. More information on PhD TRACK can be found in Annex 9. To further support

PhD students, CAPHRI appointed a PhD coordinator in 2009, who functions as a low-threshold contact for PhD students and is responsible for monitoring and supporting the CAPHRI PhD students in both a qualitative and an instrumental way. Furthermore, CAPHRI has appointed PhD representatives who also act as a low-threshold contact for PhD students, spreading relevant information, organising meetings, acting as a sounding board for potential improvements of CAPHRI regarding the PhD students, etc.

The success of these measures can be seen in the considerable decrease in discontinuation rates since 2008 (See table 5). The average discontinuation rate for the last two years was as low as 2%, representing just one student out of 47 in the 2008-2009 cohorts. Most of those who drop out, stop in the first months due to personal circumstances that are beyond the influence of supervisors. The reasons behind these individual cases are discussed in exit-talks between the students and their supervisors, thus, the causes can be evaluated. The usefulness of the system was recognised by the VSNU, who announced it as 'young talent best practice'. Other schools and faculties of the UM and other universities have indicated that they are also interested in using TRACK.

#### **Average time taken for thesis completion**

Based upon the information currently available, the average time taken for thesis completion by internal PhD students of the 2002-2007 AIO cohort was 4.49 years<sup>14</sup>. However, 28 PhD candidates have not yet finished, due to personal circumstances. Based on the assumption, that these 28 people would finish 6 months after their PhD contract comes to an end, a prognosis was made of the average time taken for thesis completion of the total cohort. The average duration is then expected to be 4.97 years, which better reflects reality.

The CAPHRI PhD quality system, PhD TRACK, is not only expected to result in a decrease in the discontinuation rates, but also in a decrease in the average duration of PhD

trajectories in the coming years, because possible problems are detected much earlier. This average will decrease even further due to the increasing influx of HSRM graduates and Kootstra fellows who had already performed part of their research and written scientific articles before starting their PhD trajectories (See A.10).

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<sup>14</sup> This calculation is based upon the 32 persons out of the 2002-2007 cohort (74 in total) that have graduated. 14 persons have stopped and 28 are not finished yet.

## Research facilities

As one of its main research strategies, the school has actively developed facilities for large scale longitudinal studies on determinants of health. The complexity of interactive factors, individual (e.g. genetic) and social factors demands the generation of long term, broadly designed population studies, which enable the study of causalities and outcomes in complex patients. The school, therefore, has invested a lot of energy into developing both large scale infrastructural facilities, such as the 'Regional Network of General Practitioners' (RNH) and SMILE (Study of Medical Information and Lifestyle in Eindhoven)<sup>15</sup>, as well as highly profiled and specialised cohort and database studies on specific disease areas. RNH is an extensive computerised network of general practices, with a basic data set compiled from a population of over 100,000 participants, collected long term over a period of more than 20 years, and providing a strong infrastructure for population sampling and clinical epidemiological studies in primary care. The second infrastructural facility, modelled on RNH and begun in 2003, is SMILE. This is also a network of general practices, encompassing over 30,000 patients, located in the province of Brabant and focussed on the region of Eindhoven. Longitudinal data on lifestyle, health behaviour and health care use are collected through questionnaires, and are linked with patients' medical files. This enables scientists to perform research into the interaction between social, medical and psychological factors in health and disease, and to then construct health (care) interventions to influence these factors. SMILE aims to develop new ways of integrating public health and primary care research.

Several specialised cohort studies and underlying databases have been developed; a cohort study among 12,000 employees focusing on prolonged fatigue in the working situation (PVA) and a cohort study on 7,500 pregnant women and their offspring (PPBS and KOALA respectively). An initial cohort of 10,000 patients with diabetes (and control subjects) called 'the Maastricht Study' is starting, initiated by the FHML School CARIM. Furthermore CAPHRI participates in the regional diabetes care structure: DIAMAND.

A structural partnership with GGD Zuid-Limburg, the 'Limburg Academic Collaborative Centre for Public Health', financed by ZonMw (with over €4 million in the past five years and another €1.5 million for the coming years), gives access to extensive epidemiological and youth care data sets. The Limburg Academic Collaborative Centre is targeted at exploiting these databases for research and practice. A good example is the LucKi-study, a birth cohort aimed at the prevention of respiratory problems in children. Since 1989, the prevalence of respiratory problems in children aged 0 – 11 in the Western Mining area in Limburg<sup>16</sup> has been investigated on a large scale.

<sup>15</sup> *Studie naar Medische Informatie en Leefwijzen in Eindhoven* (SMILE). Study of medical information and lifestyle in Eindhoven.

<sup>16</sup> This area was called *The Western Mine-area*, due to the fact that there used to be a large coal mining industry there.

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The 'Limburg Academic Collaborative Centre for Public Health', financed by ZonMw (with over €4 million in the past five years and another €1.5 million for the coming years), gives access to extensive epidemiological and youth care data sets.

# Earning capacity

## Earning power

The school scores highly in terms of its capacity to attract highly prestigious research funds: over the past 6 years almost 25% of the scientific staff has been paid by prestigious research funding organisations, such as NWO and ZonMw. Overall, more than 50% of CAPHRI scientific staff's salaries are being paid from grant funding. For examples of recently granted applications, see Annex 8.

There are several big initiatives that deserve to be mentioned. The first of these is the Academic Collaborative Centre for Public Health, Limburg, which has brought in a total of €5,5 million ZonMw funding (including the latest grant of €1,5 million). Secondly, the Limburg ACZIO ('Academisch Centrum Zorginnovatie Ouderen', Academic Centre for Innovation of Care for the Elderly) network, accommodated by CAPHRI, has been very successful from its onset in 2008. The total grant amount received thus far is €8,7 million (also from ZonMw). Finally, the recently approved CCTR-initiative<sup>17</sup>, is a source of great pride for CAPHRI. The Centre for Care Technology Research was selected by NWO/ZonMw as an official Centre of Research Excellence (CoRE) in the context of the national IMDI (Innovative Medical Devices Initiative) to stimulate research related to medical devices. NWO is planning to invest €26 million over the next 7 years in CCTR, which makes this innovative project the biggest CAPHRI programme ever.

In terms of 'European money', CAPHRI has been very successful in the last couple of years. In 2008, twelve EU grants were obtained, followed by another ten in 2009, three of which are coordinated by CAPHRI.

On a more personal level, CAPHRI researchers have received a number of prestigious grants. To illustrate this, a few recent grants will be mentioned. In both 2008 and 2009, two PhD graduates received a NWO Rubicon grant. As well as the NicVAX TOP-grant received in 2008, more recently, in 2010, Prof. Luc de Witte received a NIG-TOP grant of €675,000 for an innovative project that supports patients in their self-management role. The grant is part of the NWO-theme 'New instruments for Health Care (NIG-TOP)'. In June 2010, Chris Arts from CAPHRI obtained €1,9 million for his research into a new method to treat patients with a spinal deformation called 'idiopathic scoliosis'. The funding organisation is BMM (the BioMedical Materials programme), a Netherlands based public-private partnership dedicated to enable breakthroughs in the development and application of innovative biomedical materials. Furthermore, in 2010, CAPHRI received 2 VENI grants in the prestigious NWO Vernieuwingsimpuls, the Innovational Research Incentives Scheme.

CAPHRI has put considerable effort into encouraging its researchers to write high quality applications for the NWO Vernieuwingsimpuls. The principal focus has been on VENI grants, prestigious individual grants within the NWO Vernieuwingsimpuls scheme. When the Centre of Excellence means were awarded, it was decided to use a large part of this money for the 'breeding ground policy' (see A.10.4) and to focus on talented post-docs. CAPHRI created and financed five to ten post-doc positions per year, selecting outstanding PhD graduates for these posts and asking them to focus on one thing only: the preparation of excellent VENI proposals. The post-docs were given ample time and support to write well-balanced research proposals and, at the same time, to acquire adequate experience abroad to enrich their CVs. To guarantee the quality of the applications, there was a strict selection procedure: all proposals and CVs were reviewed and had to be approved by the CAPHRI scientific committee.

The efforts have clearly paid off. Two young researchers in the Department of Health Promotion, Rik Crutzen and Liesbeth van Osch, received VENI grants this year. In total, the policy resulted in eleven VENI applications being submitted to NWO in January 2010. Of these eleven applicants, five were invited to present their project to the applicable NWO committee (ZonMw, MAGW or interdivisional), two VENI grants were awarded and one other VENI applicant was told the final decision would be made later. Furthermore, CAPHRI has one VIDI candidate who was invited to present her project to the NWO committee and is now awaiting their final decision. For CAPHRI, this good score is especially noteworthy, as it has previously proven difficult for the health sciences to score highly in the NWO Vernieuwingsimpuls. As can be read on the ZonMw website: "On the basis of an evaluation, the ZonMw Board has concluded that applications in the area of health (care) sciences do not have an equal opportunity to compete for NWO subsidies such as the Innovational Research Incentives Scheme (*Vernieuwingsimpuls*)".

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<sup>17</sup> Initiated in cooperation with the Universiteit Twente and TNO (Netherlands Organisation for Applied Scientific Research).

# Academic reputation

One way to illustrate CAPHRI's academic reputation is by highlighting specific prizes and awards that were received in the reporting period. A prize CAPHRI is particularly proud of is the coveted 'ZonMw Pearl', which is awarded by the Netherlands Organisation for Health Research and Development (ZonMw) for projects that stand out due to their scientific quality and societal impact and which can serve as an example to other researchers. In 2009, the ZonMw Pearl was awarded to Jochen Cals, for his research on discouraging the unnecessary use of antibiotics in GPs' practices. One week after receiving the ZonMw Pearl, Cals was also awarded the CaRe dissertation prize: his PhD was judged the best CaRe dissertation in 2009. Jochen Cals graduated 'cum laude'. On top of all this, he was nominated for the 'Research Paper of the Year 2009'. This is a special award, instituted by the BMJ, for the medical journal article that, of all international journal articles in 2009, has contributed most significantly to improving health and health care (societal impact). Earlier this year, CAPHRI's IMPALA project (Prof. Trudy van der Weijden and Marije Koelewijn) already received a Pearl. The IMPALA project revolved around the involvement of patients in cardiovas-

cular risk management in general practice. The researchers in question were also selected as junior and senior attendees at the invitational Dartmouth Summer Institute on Shared Decision Making in Dartmouth, UK, June 2010. In 2004, CAPHRI received the ZonMw Pearl for its MATADOR (Maastricht Transmural Diabetes Organisation) project. Bert Vrijhoef was the researcher involved. In 2008, Vrijhoef was the first Dutch researcher ever to be awarded the Harkness Fellowship in Health Care Policy and Practice by The Commonwealth Fund, USA, and the Dutch Ministry of Health, Sport and Welfare. After first winning a national scholarship, CAPHRI's Janneke Grutters was then recently voted winner of the European HTAcademy scholarship 2010/2011. The project she submitted is entitled 'Every person is unique: the role of heterogeneity in health technology assessment'. In 2008, Rixt Zijlstra received the Professor Schreuder Prize for the best Dutch PhD thesis in ageing research in 2007 and 2008: 'Managing concerns about falls. Fear of falling and avoidance of activity in older people'. Loes van Bokhoven received the award for the best dissertation by a general practitioner for her research project entitled 'Blood test ordering for unexplained

complaints in general practice'. It was awarded by her colleagues from the '*Nederlandse Huisartsen Genootschap*' (NHG, Dutch Society of General Practitioners).

In 2008, Ties Hoomans, a postdoctoral fellow from the HTA (Health Technology Assessment) programme, received the NWO RUBICON-grant to continue his research at the University of Glasgow, for one year. An article Ties published in 'Value in Health', as a result of his work in Glasgow, won the ISPOR Research Excellence Award 2010. Earlier, in 2008, Ties Hoomans' publication was chosen as the best publication of 2008 by both the audience and the jury of the Dutch Association for Technology Assessment in Health Care. In 2009, Femke Lamers won the prestigious RUBICON-grant, based on her CAPHRI research project 'subtypes of depression'. She went to the National Institute of Mental Health in Bethesda, USA. The prizes and awards mentioned here are just a selection, for a full overview, see Annex 14.

Another important parameter is the participation of CAPHRI staff members in influential and prestigious committees.

For example, there are CAPHRI staff members in the NWO VENI (Prof. Martijn Berger), VIDI (Prof. Onno van Schayck) and VICI (Silvia Evers, PhD) -committees. Prof. Klasien Horstman is member of the NWO WOTRO-committee. Apart from the four people mentioned here, approximately 20 CAPHRI staff members participate in various ZonMw-committees.

Prof. André Knottnerus is a member of the Royal Netherlands Academy of Sciences (KNAW) and was appointed in 2009 as chair of the Medical Section of the Academy. Furthermore, he was until mid 2010 the President of the Dutch Health Council, and very recently, Prof. Knottnerus was appointed chairman of the Scientific Council for Government Policy (WRR). Altogether, many CAPHRI staff-members are active in committees. According to the figures gathered in the framework of societal impact, CAPHRI is involved in 354 committees or editorial boards (see Annex 16).

# Societal Impact

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## Interview

**Henk Smid, director of ZonMw, the Netherlands organisation for health research and development**

"CAPHRI research financed by ZonMw has without a doubt great potential social relevance". As an example Smid mentions the research at CAPHRI into a vaccine against nicotine addiction. "If this vaccine is effective and is marketed, many people who now try in vain to quit smoking can kick their addiction. This would have a positive impact on public health. In other words, research like this has a major impact on society". Henk Smid also commemorates CAPHRI's Academic Collaborative Centre, where the partners (GGD, Maastricht UMC+ and the South Limburg city councils) aim to bridge the gap between policy, practice and science. At the end of the interview Henk Smid gives an example of how a research project can influence society: "Partially on the grounds of the results of the CAPHRI PREVASK study, the National Health Council was able to formulate recommendations regarding the effects of allergies and environmental factors on asthma".

According to the Mission Statement (see A.1.1), CAPHRI does not only want to provide high-quality research and teaching (focused on health care innovation, ranging from prevention to rehabilitation), CAPHRI wants its research and teaching to lead to the improvement of public health and health practice and, ultimately, the population's health.

#### **CAPHRI's societal impact according to its most important stakeholders**

The question of whether CAPHRI is actually achieving the goal expressed in its mission statement was the leading question in a series of interviews which were done by CAPHRI<sup>18</sup> in the framework of this self-evaluation report. Six stakeholders, representing the health care sector as well as the academic world, were invited to say something about how they perceive the impact CAPHRI's research has on society. All interviews are gathered in Annex 15. Throughout the text of this Chapter, some quotes from these interviews are presented.

For primary care and public health research, assessing practical and societal impact often needs a long term perspective. When it comes to these research fields, from the early eighties Maastricht University has proven to be very effective in the development of and contribution to innovative concepts and applications of highly practical relevance. As an illustration, the following concepts can be mentioned: integrated and shared care; health promotion; academic networking between research and care fields; applying clinical epidemiological knowledge in primary care and prevention; development, implementation and →

<sup>18</sup> The interviews were done by Karin Burhenne, a free lance journalist working for CAPHRI.

## **Interview**

**Maastricht Councilor Jacques Costongs**

### **'Cooperation with the academic community influences local government and encourages innovation'**

Jacques Costongs believes that administrators benefit from cooperation with the academic community. "As a municipality, it's interesting to have a research institution like CAPHRI as a partner, as this collaboration influences local government and encourages innovation. A major advantage is that we as municipality also come into contact with companies and institutions, and this ultimately leads to logical, academic research activities."

## Interview

**Lies van Gennip, director of the Dutch STIVORO foundation, an organisation that strives for a smoke free future**

She believes that CAPHRI and STIVORO together can create products that are useful for society. The partnership with CAPHRI rests on a conscious choice. "On a nationwide level, there is no other institute more in favour of an integral approach to smoking cessation than CAPHRI. In this sense their research group has a more extensive research base than anyone else in the field, and this provides a good basis for cooperation." Lies van Gennip sees an opportunity to take an integral approach to policies on smoking cessation. "Seen on a national level, CAPHRI is also the research institute that, in addition to carrying out research aimed at intervention, is most active in this field." Van Gennip also recognizes that CAPHRI has been able to distinguish itself as an institute with an influence on the political agenda.

evaluation of clinical guidelines and standards in primary care; introduction of e-health, ICT support, and non-invasive biomedical technologies in general practice; smoking prevention and cessation programmes; the methodology of community-based health promotion projects; introducing specialised nurse practitioners in outpatient and homecare for chronic and severely ill patients; and introducing and developing the concept of societal impact itself. These concepts and applications have been implemented and further developed both nationally and internationally.

### **Measuring societal impact, a quantitative approach**

In line with this strong and longstanding tradition, CAPHRI's research programmes are continuously working so as to have a societal impact, both in the shorter and longer term. Contributions are being made in the various categories of societal impact as described by the KNAW, such as professional publications, (clinical) guidelines and standards, tools and instruments, ICT and care technologies, key advisory and policy roles, and communication to and with the public.

CAPHRI felt the necessity to develop objective criteria to assess the societal quality of its research. In 2006, CAPHRI adopted a number of indicators for societal impact and, as of 2007, all CAPHRI programmes were requested to register societal impact according to these indicators. At first the CAPHRI administration asked to register everything on a special form. Later on the registration was professionalised and an on-line registration programme (METIS) was used, which allows one (or more) authorised persons per programme to register all displays of societal impact in the database. The indicators have also changed slightly compared to the ones that were initially developed. Annex 16 presents the figures, per cluster, for 6 categories. (Annexes 21, 22 and 23 present the lists of registrations, per cluster - on the secluded part of the website).

→

## Interview

**Roger Ruijters, member of the executive Board of the South Limburg MeanderGroep**

He believes that CAPHRI research is beneficial to the entire field of geriatrics and elderly care. The cooperation between the MeanderGroep and CAPHRI over the past years has clearly resulted in changes in elderly care. For instance, the reduction of restrictive measures in care for elderly people suffering from dementia. “The results of this scientific research are not only useful for us, but for the whole sector”, says Roger Ruijters. Another important example is the ongoing study led by Prof. Hamers into the effects of small-scale living on elderly people suffering from dementia.

## Interview

**“CAPHRI uses social relevance as its starting point”, is the experience of the regional *Huis voor de Zorg* (House of Care) director Jo Maes**

He says that patients are already reaping the benefits. “CAPHRI’s research is clearly socially relevant, as the results of the past years in patient care testify”, Maes says. Striving against unnecessary restrictions in elderly care is an appealing example. According to Maes, CAPHRI has worked together with the *Huis voor de Zorg* more intensively than any of the other research and educational institutes. “This distinguishes CAPHRI from other research institutes. It also demonstrates how highly CAPHRI values cooperation.”

“CAPHRI uses social relevance as its starting point. CAPHRI’s research is clearly socially relevant, as the results of the past years in patient care testify.”

## Interview

Emeritus Professor Public Health Paul van der Maas

### “CAPHRI does research on all kinds of questions with social relevance”

“The research that CAPHRI does is clearly based on all kinds of socially relevant questions”, says Professor Paul van der Maas. “In many cases, this academic research can have short- and medium-term consequences on society. And CAPHRI’s policy is after all aimed at practical application in society.”

### Societal impact, a few examples:

As was mentioned by two of the stakeholders (Annex 15), the societal impact of the ‘restraint reduction in nursing homes’ research project was considerable. It has led to a new law and there was a lot of media attention (see B.2.4.1).

In 2003 a randomised controlled trial - funded by the ZonMw National Ageing Programme ‘Succesvol Ouder Worden’ – was started at CAPHRI, to develop and evaluate a cognitive behavioural group programme to reduce the fear of falling in old age. The outcomes of this study, published in 2008, were highly promising: (a) the intervention ‘*Zicht op Evenwicht*’ (a view to better balance) obtained the Dutch national certificate of highly qualified and acknowledged interventions by the RIVM<sup>19</sup>; (b) the successful intervention is currently nationally implemented in health care in close collaboration with the Trimbos Institute Utrecht<sup>20</sup> – the overall objective is to implement the programme in at least 50% of the more than 60 Dutch home care organisations by the end of 2011; and (c) in 2008, Rixt Zijlstra, researcher on this project, received the Professor Schreuderprijs for the best PhD thesis on ageing in the Netherlands.

The work of CAPHRI’s post-doc Jochen Cals on the management of respiratory tract infection in primary care drew considerable media attention in the Netherlands and abroad. Together with CAPHRI post-doc Daniel Kotz he also published in the *Lancet*, on the subject of improving the international identification of researchers. The successful publication resulted in an interview in *Science*.

The scientific work of Jochen Cals, Loes van Bokhoven and Tineke van Geel will be part of three Standards of the Dutch College of General Practitioners. The three respective Standards are ‘Acute cough’, ‘Fatigue’ and ‘Osteoporosis’. The work of Jochen Cals can be found in paragraphs on diagnosing and managing respiratory tract infection, Loes van Bokhoven’s work is mainly part of the section on blood

investigation in patients with unexplained fatigue, and the work of Tineke van Geel mostly covers the section which deals with fracture prediction.

The societal impact of CAPHRI is also visible in outreach courses which are given nationally and internationally. The HTA programme of CAPHRI was for instance selected by the Health Care Insurance Board (CvZ) in a competitive grant to educate the CvZ-staff and to develop their knowledge on the principles of pharmaco-economic studies.

Traditionally, CAPHRI's Health Promotion programme has had strong partnerships with national health organisations, such as STIVORO, an organisation that strives for a smoke-free future (see interview 2 with Lies van Gennip, Annex 15), Trimbos institute, a centre of expertise on mental health and addiction, KWF (Dutch Cancer Society), the Dutch Asthma Foundation and the Dutch Heart Foundation. Together with these national health organisations, which are rooted in Dutch society and have an important advisory role in the national political arena, several health promotion programmes were developed, tested and implemented. Two examples of current initiatives with STIVORO are "Smoke Alert", an on-line quit smoking programme for adolescents (15-18 years), and a smoking prevention programme aimed at primary education. The analysis of the implementation of the smoking ban in cafés, restaurants, hotels and bars in the Netherlands is a topic that attracts a lot of media attention. The appointment of Marc Willemsen as endowed professor for Tobacco Control Research at CAPHRI is an important development for the cooperation with STIVORO. Together with the TRIMBOS institute, a binge drinking prevention programme is being developed and there are currently a number of projects with the Dutch Heart Foundation.

<sup>19</sup> Loket Gezond Leven: <http://www.loketgezondleven.nl/i-database/interventies/z/11031/>

<sup>20</sup> <http://www.trimbospreventie.nl/?themelD=340>

# Viability

### **Resource management and available infrastructure**

CAPHRI is a strong, viable and vibrant school, organised in a multi-disciplinary and bottom-up way, which provides a strong infrastructure allowing an efficient planning and control cycle to ensure high quality research and teaching and at the same time allows for maximum flexibility to honour innovative ideas.

The School's strategy to improve research performance is directed at the level of the programmes. Each programme is expected to meet a set of output criteria, as described in the 'CAPHRI programme management policy 2010' (Annex 5). The main criteria are: scientific publications (especially in high impact journals), fund acquisition, supervision of (PhD) projects and societal impact (such as guidelines, reports, committee memberships and contributions to cultural debates and public policy making). Research performance is discussed in Planning and Control meetings between the scientific director, managing director and the individual research programme leader(s) and head of department, which take place twice a year. If a programme does not meet the criteria over a three year period of time, it will be discontinued. The programme structure is flexible; it enables the school to start new research, and to end lines of research that are no longer productive. Comparing Annex 4A (current programme structure) and 4B (2007 programme structure) illustrates the dynamics of the structure. Planning and control meetings are held at the programme level (to discuss research output), at the Master's programme level (to discuss educational matters and number of students) and at departmental level (to discuss input figures for research and education).

### **Scientific Committee**

The scientific committee is a crucial element of the quality assurance process. The committee advises the scientific director, either on request or on its own initiative, about the research policy of the school. The scientific committee is

specifically requested to safeguard the scientific quality of applications being submitted for prestigious research funding (especially for governmental organisations such as ZonMw and NWO Vernieuwingsimpuls, NWO-TOP, STW-TOP and EU projects).

### **Scientific Advisory Council**

#### **(WAR – *Wetenschappelijke Advies Raad*)**

CAPHRI's Scientific Advisory Council (WAR) gives advice, whether requested or of its own accord, on research policy, both from a content and an organisational point of view. The WAR acts as a sounding board for the scientific director. The WAR has 6 members and is chaired by Prof. H.C.W. de Vet, Professor of Clinimetrics at the EMGO institute for Health and Care Research, Amsterdam. The other 5 members are: Prof. Jozien Bensing, professor of Health Psychology at NIVEL (Netherlands Institute for Health Services Research), Prof. Gerjo Kok, professor of Applied Psychology at Maastricht University, Prof. Harry Struijker Boudier, professor of Pharmacology, Maastricht University, Emeritus Prof. Paul van der Maas, professor of Public Health at Erasmus UMC, Rotterdam, and Prof. Jan Degryse, professor of General Practice at the Katholieke Universiteit Leuven (KUL) and the Université Catholique de Louvain (UCL).

### **Viability of scientific output**

CAPHRI aims to consolidate its high quality and wants to build its future on the firm basis provided by its performance in the previous period. The overall scientific quality is showing an upward trend, whether one looks at the bibliometric analysis, impact factors, CAPHRI's output in terms of publications in peer-reviewed SCI/SSCI journals (see Figure 5, and also Figures 3 and 4), number of PhD graduates or earning capacity. Even CAPHRI's carefully constructed 'breeding ground policy' seems to have begun to pay off with two recent VENI grants, which is a hopeful sign that CAPHRI has found the right 'key' to attracting prestigious individual grants.

### Perspectives for the future

In the decades to come the pressure on public health, primary care and integrated collaboration will increase further, as a result of demographic developments, an increase in prevalence of chronic diseases, changes in health care provision and advancing technology. The ageing of the population is associated with an increased average life span and a growing number of people with chronic illness. There is also a growing awareness that patients often do not suffer from single, straightforward complaints, but that they have more, and often related, symptoms. More focus on chronic diseases and especially on the problem of multimorbidity demands that a cohesive and integrated framework of care services be put in place. Also, there is a consistent trend of reshaping health care provision, limiting hospitalisation to strictly necessary cure-related specialist activities while leaving (after) care-oriented efforts to the ambulatory field. Most health care takes place outside the hospital walls, for example in GPs' practices, labour organisations, schools and at home. Parallel to this trend is a relative decrease of employees available to work in health care. The result is obvious: prevention of disease and its consequences is necessary and integrated care and care-related prevention have to be delivered in a more efficient way, optimally making use of the self-management potential of patients. Information about health and illness is widely available, through the internet and other networks. New approaches, both at a personal level (using genetic knowledge or behavioural information) but also at the social, political, environmental, national and international level are needed. This development is being facilitated by an increasing availability of health care technology appropriate for ambulatory and home care settings. Consequently, the provision of effective, adequate and integrated extramural and integrated health care in a tailor-made form will be increasingly important, considering both informal and professional care domains. In addition, the demands of society regarding quality, transparency, and accountability of care will increase. Therefore research regarding the

development, evaluation, implementation and improvement of ambulatory and (continuity of) home care is needed. Investigating the technology and organisational conditions required for this purpose, remains a major challenge.

Furthermore, public health and primary care are enjoying plenty of attention: prevention and self-management are policy priorities and are becoming better recognised by insurance companies. There is a clear shift taking place, aimed at the general public, from care-related prevention to public health prevention, and from tertiary and secondary prevention to primary prevention. Research into health promotion and public health and the effectiveness of preventive interventions and, consequently, the systematic implementation of proven effective interventions are essential research issues.

### Innovative capacity

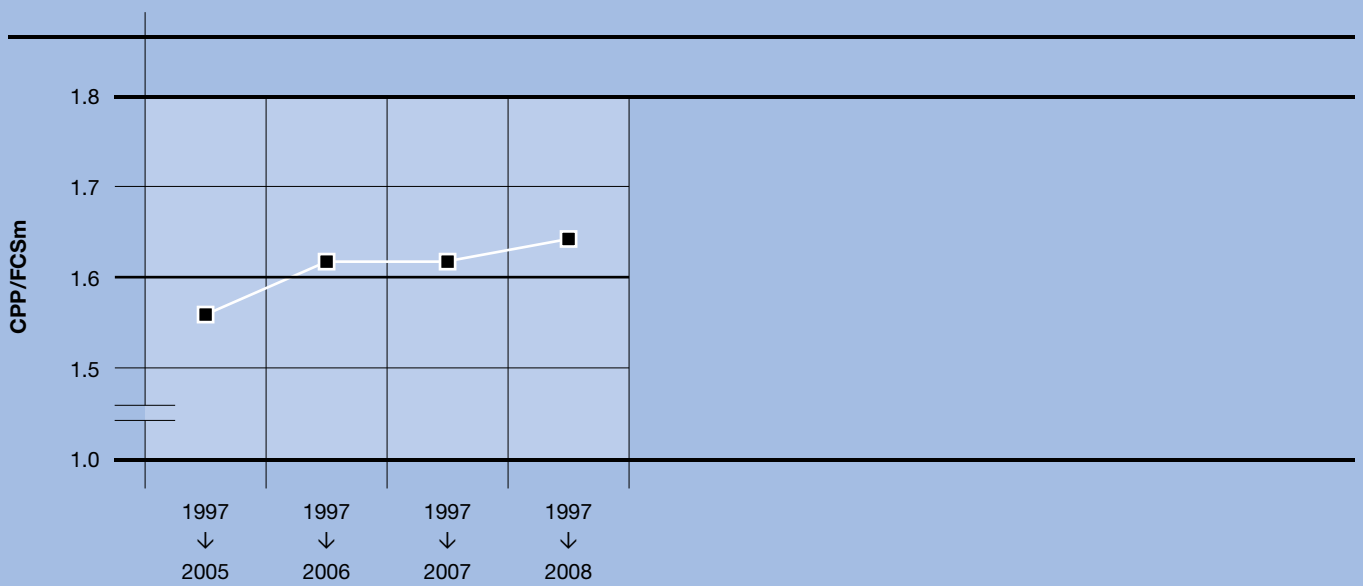
Within CAPHRI there is a buoyant atmosphere where innovative ideas can blossom and thrive. There are many examples of innovative projects.

With a planned NWO investment of €26 million in the next 7 years, the Centre for Care Technology Research, which was initiated in cooperation with Twente University and TNO, will be a Centre of Research Excellence (CoRE) in the context of the Innovative Medical Devices Initiative to stimulate research related to medical devices. CCTR does not only want to develop new medical devices and publish about them in scientific journals, they also aim to make a substantial contribution to the innovation and improvement of long-term extramural care and care related prevention and to the challenge of creating a durable healthcare system. Furthermore, CCTR wants to support healthcare organisations to implement the new concepts and technology in everyday care practice. Bridging these worlds of technology development and care practice, and thus making full use of the potential of modern technology is a truly innovative approach.

→

# Figure 5

## Trend in CAPHRI's bibliometric analysis scores



Journal Impact compared to world field average, comparing bibliometric scores of 2005, 2006, 2007 and 2008

CAPHRI's overall scientific quality is showing an upward trend, whether one looks at the bibliometric analysis, impact factors, output in terms of publications in peer-reviewed SCI/SSCI journals, number of PhD graduates or earning capacity.

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Another innovative project is the Public Health Genomics European Network (PHGEN). This CAPHRI-coordinated network is a cornerstone in the development of Public Health Genomics in Europe. It is funded by the General Directorate for Health and Consumer Protection (DG SANCO) under the Health Programme. PHGEN aims to develop the first edition of the “European Guidelines on Quality Assurance, Provision and Use of Genome-based Knowledge and Technologies”. The guidelines will be implemented in Europe to help policy makers to cope with the emerging knowledge from genomics and systems biology. The project helps policymakers to prepare European public health systems to master this challenge. The EU funding for this project is €2.1 million, of which €780,000 is earmarked for CAPHRI as coordinating institute.

# Next generation

CAPHRI values an efficient HRM policy and is willing to invest in it. Part of the policy is to recognise, stimulate and support talented students and staff and retain them by offering suitable career opportunities. For CAPHRI, this starts at the level of the Master's students and does not stop until the level of established top researchers. This policy is also one of the reasons why it is so important for CAPHRI to have a strong interaction between research and education. This will stimulate motivated Master's students to start a PhD study, and, the other way around, it will give experienced research and teaching staff the opportunity to recognise talented students at an early stage.

## CAPHRI Master's programmes

CAPHRI has the following range of Master's tracks: the Health Sciences Research Master (HSRM; two-year programme), the MSc in Public Health (MPH, consisting of four specialisations), the MSc in European Public Health (MEPH), the Post-initial MSc in Public Health for Professionals (MPHP), the Global Health MSc, and a post-initial Master's in collaboration with the Municipal Health Department (to be accredited). Annex 10 presents the influx numbers of all CAPHRI master's programmes.

### The research Master's training and education programme

The HSRM programme offers keen students an environment in which they can fully realise their ambitions to become excellent all-round researchers, by providing them with the opportunity to discover the whole field of primary care and public health. This is achieved through extensive teaching of theories covering the interdisciplinary fields within health sciences, frequent contact with researchers, a whole year of practical training, and additional internships with various researchers. Students applying for the HSRM have to pass a strict selection procedure. The students form a community of top talents who learn to work both independently and in teams. Within the HSRM, three profiles have been distinguished: Clinical Epidemiology, Health Technology Assessment and Social Health Sciences (see Annex 11). CAPHRI aims to have an average influx of 20 highly talented research master students per year.

## CAPHRI PhD programmes

The training and education programme of the PhD phase builds upon the Health Sciences Research Master. The PhD courses deepen the skills and knowledge acquired in the research master. The aim of CAPHRI is to develop PhD students into highly qualified, independent and critical researchers. Each CAPHRI PhD thesis consists of at least 5 high quality papers that have been submitted to international scientific journals, of which the PhD student is the first author. At least 3 papers should have been accepted for publication. In addition, the PhD thesis includes an introductory chapter and a conclusion/discussion chapter. Apart from a successful defence of the PhD thesis, the Training and Supervision Plan has to be completed successfully to demonstrate that the student has become a well-equipped researcher.

CAPHRI offers its PhD education and training programme in cooperation with the national Research School, CaRe. CAPHRI PhD students are free to choose courses that fit their specific educational background and work experience, and which offer the theory and skills needed in their research project, from both CAPHRI and CaRe, and other relevant sources. CAPHRI does not find it desirable to oblige all PhD students to follow a prefixed set of courses as there is such a diversity of PhD students and projects. Each PhD student lists the courses s/he plans to follow in a Training and Supervision Plan (TSP), which is compulsory for all PhD students. The TSP is signed by the PhD student, co-promoter, promoter, HR officer and should be approved by the PhD co-ordinator, within three months of appointment. This TSP is an important part of the CAPHRI PhD student Quality and Monitoring system (PhD TRACK), which makes sure that the rights and obligations of both PhD students and supervisors are well looked after. (For more information on PhD TRACK, see A.5.2 and Annex 9).

## Career perspectives for CAPHRI

### PhD graduates

All CAPHRI PhD graduates are closely monitored at the departmental and programme level. In general, there is virtually no unemployment amongst CAPHRI PhD graduates. Annex 13 gives a detailed description of all CAPHRI PhD graduates and their current position and employer. 70% of CAPHRI PhD graduates are still working as researchers (often combined with policy, care or teaching) in the academic world. Of the remaining 30%, 10% currently have a policy job, 15% work in the health care sector and a small percentage (1-2%) works in trade and industry (or other). At the FHML-level, the HRM-department has investigated the career perspectives of all its PhD graduates and has drawn the following conclusions: approximately 10% of PhD graduates are offered a permanent job within the FHML, 30% get a temporary post-doc position (which can be extended in some cases), approximately 40% move to positions in the health care sector, education and the non-profit sector and the remaining 20% start a career in trade and industry. From these figures, it can be concluded CAPHRI graduates tend to remain in research more often than the average amongst graduates in the FHML.

## CAPHRI's 'Breeding ground policy'

CAPHRI's so-called 'breeding ground policy' is aimed at recognising, stimulating and supporting talents among its (research) master students, PhD candidates and research staff, and providing them the opportunities to excel. The 'breeding ground policy' is closely linked to CAPHRI's quality systems: 'PhD TRACK', for PhD students, and the regular planning and control cycle, where the output of individual researchers is assessed. Furthermore, the School's Research Master Programme can also be seen as an excellent source of talented junior researchers.

CAPHRI is willing to invest in its talented staff, and offers incentives for every level of researcher. For Master's students who have the ambition to travel abroad for academic purposes (and thus enrich their CV), a CAPHRI scholarship of maximum €500 is available. For all PhD candidates (internal and external) CAPHRI offers a personal budget of €4,100 (in addition to project funds) for courses, conferences, workshops and travel costs, which is released after approval of the Training and Supervision Plan by the PhD coordinator. A CAPHRI policy especially aimed at talented post-docs provides at least five post-doc positions per year for excellent PhD graduates with the single purpose of preparing excellent individual grant proposals, such as 'VENI' proposals (NWO Vernieuwingsimpuls). The post-doc is given sufficient time and support to write a well-balanced research proposal and, at the same time, acquire adequate experience abroad to enrich their CV. Furthermore, the school provides incentives (approx. €7,000) for any researcher who writes a high quality application for a prestigious individual grant, such as the NWO Vernieuwingsimpuls (whether VENI, VIDI or VICI).

### **Overall talent policy**

CAPHRI promotes investment in and development of its people to achieve its objectives. The breeding ground policy mentioned above is part of the greater CAPHRI human resource system, which looks amongst others at recruitment and retention of academic staff in an increasingly global market, tenure tracks, ageing of the workforce, succession planning and an overall talent policy, aimed at identifying and supporting talented staff at all levels. CAPHRI distinguishes three categories of talented staff: talented junior researchers, high potentials and established top researchers. It is CAPHRI's policy to support established top researchers in developing their research programme, and to stimulate them to set up larger research initiatives. An important role for these researchers is to coach young, talented staff. In this way junior staff will benefit from the expertise of the established top researchers. The HRM-policy is closely linked to the CAPHRI quality system.

# SWOT analysis

**The overall CAPHRI SWOT analysis is based upon the SWOT analyses made by all (17) programme leaders and three cluster leaders. Doing justice to CAPHRI's bottom-up strategy, all programme leaders were firstly invited to reflect on the position of their programme in a SWOT analysis, comparing themselves to their national and international peers, as listed in Annex 6. Then the cluster leaders were invited to draw up a SWOT analysis based on the SWOTS done by the programme leaders. All these elements, combined with strategic insights and a helicopter view at the School level, has led to the School's overall SWOT analysis, presented on the next two pages.**

## Strengths

**1**

CAPHRI draws in prestigious national and international grants on a large scale. In general, but probably also compared to their peers, CAPHRI scores particularly high on prestigious ZonMw-projects and projects/networks funded by the EC.

**2**

CAPHRI's output scores (in terms of citation rates) can compete with the absolute top of the world in this particular field.

**3**

CAPHRI is a well-balanced School, where several Master-programmes, among which two international Master-programmes, a prestigious Research Master and a PhD programme are organised alongside a comprehensive research programme. This makes it possible to have a strong interaction between research and education. CAPHRI's flourishing PhD programme, with more than 30 PhD defences on average per year, several of which are awarded a distinction, is a good illustration of the success of the School.

**4**

As a result of its bottom-up organisation and the strong interaction between education and research, CAPHRI has built a strong and integrated talent system, which is implemented from the moment a talented Master student stands out until the moment s/he is an established top researcher.

**5**

CAPHRI uses social relevance as its starting point, and is involved in the political agenda-setting process, on a regional, national and European level. In addition, it is well-equipped and flexible enough to anticipate future developments in society and influence (or sometimes even shape) health care policy.

**6**

There is a structural relationship between CAPHRI in its larger Maastricht UMC+ context on the one hand, and several extramural partners on the other hand, such as the organisation of general practitioners, nursing homes, home care agencies, etc. This is unique in the Netherlands.

**7**

CAPHRI is seen as an expert in research in health care organisation, care for the chronically ill and elderly, primary care and health promotion on a national and an international level.

## Weaknesses

### 1

Until 2010, CAPHRI was not successful in the NWO Innovational Research Incentives Scheme (*Vernieuwingsimpuls*). It took a great deal of effort (see 'breeding ground policy') to draw the first VENI-grants.

### 2

According to the 2007 review committee 'CAPHRI is good, but not enough people know it'. CAPHRI clearly lacked a good and professional PR policy. Since 2007 a clear PR policy was put in place (see Annex 17), but there is no doubt that CAPHRI has to catch up with organisations such as the 'Julius Centre', 'Nihes' and 'EMGO+' in this respect.

### 3

CAPHRI also needs to catch up when it comes to drawing funds from the big, well-known 'FES<sup>21</sup>-projects'. The new CCTR-project (see B.2.4.1) will probably be the first programme of this size (€26 million NWO support over 7 years).

## Opportunities

### 1

Demographic developments, such as an ageing society, changes in health care provision, advancing technology, a shift towards more extramural care and prevention, pose new challenges to CAPHRI.

### 2

The strategic location of the Maastricht UMC+ in the cross border Euregion Maas Rijn, the creation of a Health Campus on the UMC-premises, the close cooperation with the GGD (municipal health department) and the start of the CCTR-project are opportunities in themselves. Furthermore, these particularities have evoked strong and still increasing interest from the practice field, as well as from local and national politicians and officials.

### 3

The cooperation with the RVE (performance based unit) Integrated Care in the ZKO 'Care and Public Health' offers new opportunities.

## Threats

### 1

Budget cuts on a national level and Maastricht Academic Hospital's financial problems will no doubt mean that additional cost savings need to be planned. This might pose a threat to research, especially in the extramural area, as the hospital has to prioritise patient care duties over research.

### 2

The fact that more than half of the scientific staff is funded by external funding organisations is a strength on one hand, as it demonstrates that the earning power of the school is considerable. However, on the other hand, CAPHRI's dependency on the acquisition of external money could pose a threat to stability.

<sup>21</sup> *Fonds Economische Structuurversterking*  
Fund Economical Structure-strengthening.

# **Strategy**

CAPHRI's vision, mission and objectives influence how it carries out projects. Above all, the key-word behind CAPHRI's strategy is 'quality'. CAPHRI cherishes its quality in output-performance, education and societal impact. Because it is a bottom-up organised school, with a strong interaction between research and education, everybody within the school is stimulated to contribute their views upon its present performance and its future. This has created a strong, dynamic and quality-minded atmosphere, which has helped the school to become distinctive, both in its research portfolio as well as in its educational system and achieve competitive advantage over its main peers. It is, therefore, important to consolidate the bottom-up programme-based organisation. In this organisational context, CAPHRI wants to maintain and even further increase its excellent scientific performance and to continue to strengthen the interaction between research and education. For the near future, the challenge will be to develop a strong triangular interaction between research, education and patient-centred care, as this will be a basis for the cooperation with the Integrated Health Care RVE in the new ZKO 'Public Health and Primary Care'.

CAPHRI's integrated talent system and 'breeding ground policy' is clearly paying off, and it is now of the utmost importance to press ahead with this system. It has already resulted in two VENI- and two RUBICON grants, but CAPHRI aims for more in the near future. Apart from investing in its talent system, it is also important to try to influence policies and practice of (prestigious) funding organisations, such as NWO, KNAW, EU, and the industry to ensure that public health and primary care is on the agenda.

CAPHRI benefits to a great extent from its unique connections with extramural care organisations, such as the general practitioners and other health care providers and –organisations. Similarly, CAPHRI's involvement in the political agenda-setting process on all levels is very important. This means that CAPHRI can capitalise on new developments and be the first to jump on the bandwagon. However, as health care policy and the whole knowledge-infrastructure in health care is a very dynamic process, CAPHRI needs to be continuously aware of these changes and their implications for research. Therefore, CAPHRI aims to continue to invest heavily in its linkages with key-organisations, its memberships in advisory committees and its contacts with international organisations, in order to have 'eyes and ears' in crucial places, for example, to be able to know what is going on in the Dutch Ministries and EU-offices.

CAPHRI wants to keep investing in an effective PR and communication strategy, of which the key components will be careful targeting and clear messages, supported by sound evidence, and the use of appropriate media - internet, workshops and conferences, research papers, press, and television. The PR and communication strategy is described in the 'CAPHRI Communication Plan' (see Annex 17).

CAPHRI, together with the Integrated Health Care RVE is planning to introduce a rolling strategic plan that looks ahead over a five-year period and is updated every year. The programmes contribute to the planning process from the bottom-up through their updated SWOT analyses and strategic plans, which are discussed at the annual planning and control meetings. The five-year plan will set targets and the direction for the School/ZKO as a whole.



# Documentation at Cluster level

# **B**

# **Documentation at Cluster level**



# B

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## Introduction

CAPHRI has chosen a bottom-up structure, in which research is organised by emphasising the natural research unit - the research programme. This structure works well for CAPHRI and enhances the flexibility, transparency and decisiveness of the School as a whole. For CAPHRI, these units of organisation: the programmes on the one hand and the School as a whole on the other hand, determine the mindset from which CAPHRI works.

The research programmes are grouped into three clusters: Primary Care, Innovation of Care and Public Health. CAPHRI has chosen to use the word 'Cluster', instead of the more commonly used 'division' or 'research line' to emphasise the fact that this is a 'clustering' of research programmes, that are brought together because they share a similar main area of research. The explicit strategy of the School is to avoid an additional management layer between the programmes and the School as a whole. Therefore, the Cluster leaders do not have any management responsibility.

For the purpose of this self-evaluation, CAPHRI's research will be presented at the Cluster level, for three reasons: First of all, the programme level is too small and there is too much fluctuation to be able to evaluate the output over a period of 6 years on a yearly basis. Secondly, according to the requirements and guidelines given in the SEP-protocol (see Annex 18), it would not be possible to present the results at the Programme level, simply because the Self-Evaluation report would become much too big. Finally, the three Clusters do represent CAPHRI's main areas of research, are coherent in themselves, and as such provide a clear structure to present CAPHRI's research to the outside world.

# Cluster 1: Primary Care

The Primary Care Cluster studies the most frequently occurring signs, symptoms and chronic diseases in relation to four organ systems: the locomotor tract, the respiratory tract, the cardiovascular tract and the gastrointestinal tract. The Cluster represents clinical and methodological research in diagnosis, prognosis, treatment and rehabilitation, with patient health as the central outcome. Many studies are based on large cohorts embedded in population- and primary care-based registration networks, in which 130,000 patients are continuously monitored.

## Vision, Mission and Objectives

**The main objective of this Cluster of multidisciplinary research programmes is to optimise outcomes for patients.**

Research is focused on effect evaluation and innovation of diagnostic decision making, treatment and rehabilitation, applied in a primary care context and at the interface of primary and secondary care, in order to improve clinical management. In addition to original observational and intervention studies, much work is being carried out into the synthesis and evaluation of available knowledge (systematic reviews). The emphasis is on the research of chronic illness with a considerable burden of illness in the community, focusing on problems of the locomotor tract, the respiratory tract, the cardiovascular tract and the gastrointestinal tract. The programme structure also acknowledges that expertise regarding frequently presented symptoms and infectious disease management is very important in related differential diagnosis and management decisions. As the epidemiological basis of primary care research is very important, this is also represented in the programme structure. Furthermore, while the research methodology and statistical analysis used are comparable in the different programmes, sharing and exchange of knowledge between the programmes in the area of clinical epidemiology and health technology assessment is crucial.

Diagnostic decision-making in primary care settings usually marks the first step in professional care and is a key determinant of its effectiveness and cost-effectiveness. Diagnostics are important for recognising or excluding disease, predicting clinical course treatment effectiveness, and deciding on further – often more invasive and expensive – diagnostics, treatment and referral. Within the unselected spectrum of morbidity presented in primary health care, differential diagnosis is essentially different from that of patients referred to secondary care. Also, especially in the elderly chronic patient, co-morbidity and multi-morbidity

are important in evaluating the validity and informativeness of testing. Moreover, the methodology of diagnostic research, especially in early clinical stages, as in primary care, is far less developed than the methodology of therapeutic research. Given these specific challenges, in this Cluster, diagnostic research and its clinical epidemiological methodology is paid substantial attention, in relation to the four main clinical domains. The research includes the whole range of history taking, physical examination, additional laboratory testing, and diagnostic strategies and protocols. In addition, innovative non- or minimally invasive diagnostic technologies are tested as to their effectiveness and feasibility in primary care settings.

The central objective of the therapeutic management research is the innovation and evaluation of generalist-oriented primary care and ambulatory interventions, including rehabilitation care. Effectiveness and cost-effectiveness of newly developed and already existing – but insufficiently evaluated – interventions (general practice, physiotherapy, outpatient clinic, and community nursing, in mono- and multidisciplinary contexts) are studied. Potentials, limitations, and adverse effects of new (particularly non- and minimally invasive) are investigated. Attention is paid to long term adverse effects of chronic medication, especially in the context of polypharmacy, with a specific interest in controlling and reducing multimедication in chronic patients. Furthermore, addressing comorbidity and multimorbidity is important in therapeutic decision-making and patient follow-up. The research often requires an experimental design with long term follow-up, based on available primary care cohorts, registries and databases, such as the Registration Network of Family Practices (RNH) and the Smile study (Study of Medical Information and →

Lifestyles). Given the specific complexities of experimental research in primary care and ambulatory settings for chronic patients, much effort is also invested in methodology research and development.

Primary outcome parameters are health and well-being of patients, including quality of life and functional status. Emphasis is put on chronic disorders in the aforementioned four domains. In relation to this, frequently occurring functional symptoms and problems, that are often important in differential diagnosis, management, clinical course and health outcome, are also studied.

The number of publications in this Cluster is high. More than two-thirds (73%) of the 464 peer-reviewed 2009 articles were published in SCI-SSCI Journals. 60% of those publications (192) were published in the top 25% peer-reviewed journals relevant to the discipline and 109 (34%) in the top 10%.

## B.1.2

### Composition of Cluster 1: Primary Care

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
R. de Bie L. van Rhijn	G.J. Dinant M. vd Akker	S. vd Linden R. Landewé	M. Prins	G.J. Wesseling J. Muris	C. Bruggeman	R. Smeets
Epidemiology of musculoskeletal disorders	Diagnostic and treatment of frequently occurring diseases in primary care	Effectiveness of Diagnosis and Intervention in patients with Rheumatic Diseases	Clinical Epidemiology	Asthma and COPD	Infections and antibiotic resistance in primary care	Rehabilitation Medicine

## Research environment and embedding

The Faculty of Medicine of Maastricht University was established 36 years ago with an emphasis on serving the community and therefore on primary care. In contrast to other Faculties of Medicine in The Netherlands, Maastricht's own young faculty was intended to focus on general practice and related extramural disciplines. This was the reason that right from the start it was possible to develop an intensive academic general practice network with the registration of chronic problems presented by patients to their academic General Practitioner. This system developed and grew to become an extensive network known as RNH (Registration Network Family Practices). It also stimulated the initiation of the Department of General Practice, which developed into the largest department of General Practice in The Netherlands and, to the best of our knowledge, in the world. The scientific production of primary care in the past 20 years has been tremendous. Another important development was that of integrated health care, which is the cooperation between general practice and specialist care, and has served as a model of integrated care in The Netherlands and elsewhere. From this perspective, it was logical that Maastricht was the founder of the National Research School CaRe, which consists of the most important primary care groups in The Netherlands (CAPHRI, EMGO, NIVEL, NEBP). CAPHRI is still the coordinating institute of the Research School today.

In many countries, health care is focused on specialist care rather than primary care, which is the reason that academic primary care with typical primary care research is not extensively developed in these countries. Together with the UK, Canada and Australia, primary care research in the Netherlands belongs to the best in the world. CAPHRI is trying to work closely together with these other strong groups by means of the Brisbane Initiative (see B.1.4.1) and by inviting primary care professors from these groups to be visiting professors (see A.3.3) at CAPHRI. It is interesting that today many European countries, as well as the US, are looking to the primary care system in The Netherlands, as it is becoming clear that a well-developed primary health care system saves costs, reduces unnecessary treatment of patients and helps patients to stay ambulant and to be less dependent on health care.

## Quality and scientific relevance

In the mid-term review of October 2007, the Primary Care Cluster scored 'excellent' (5) on nearly all fronts and the scientific performance of the group was called impressive. In the official external SEP review of 2005, the research quality of the primary care group (then called division 3) was rated 5 (excellent) as well. The external review committee stated that "the research programme was of excellent quality and the combination of general practice and clinical epidemiology was very powerful. The division continually publishes in leading journals. Productivity is very high. The contribution to the field is regarded as excellent." Since then, the performance of the programme has further developed and improved, confirming its strength and reputation.

The number of publications in this Cluster is high. The number of refereed articles went up from 317 in 2004 to 464 in 2009, whereas the number of research staff has only slightly increased (from 51fte to 55fte). In fact, this increase in research staff is a result of a higher number of PhD students (17fte in 2004 and 25fte in 2009), rather than an increase of tenured staff, the number of which has actually gone down from 24fte to 20fte, making the high number of publications even more remarkable. More than two-thirds (73%) of the 464 peer-reviewed 2009 articles were published in SCI-SSCI Journals. 60% of those publications (192) were published in the top 25% peer-reviewed journals relevant to the discipline and 109 (34%) in the top 10%.

In terms of earning power, the Primary Care Cluster obtains on average, on a yearly basis, nearly €2.2 million, based on the funding figures from 2004 - 2009. Most of this money (77% on average) is contract research.

The Primary Care Cluster has started to put more emphasis on the economic valorisation of its scientific work. At this moment one patent is filed for the Exhaled Breath Condensator (Prof. Edward Dompeling), a design patent was filed for Prof. Lodewijk van Rhijn's new designed brace for children with scoliosis, and together with Tim Welting, PhD, Prof. Lodewijk van Rhijn is starting a new venture with the name 'IFP-Therapeutics'. In the framework of the NicVAX-project (Prof. Onno van Schayck), patents are filed by NABI, the company who produces the vaccine, and there are four licenses granted for the Electronic Patient Dossiers, designed by Prof. Rob de Bie's group.

## Highlights

### **The Brisbane initiative**

An illustrative example of an established international collaboration is the Brisbane International Initiative (BII). This international network of top centres in the field of primary care research has been initiated by CAPHRI (Prof. André Knottnerus and Prof. Geert-Jan Dinant), and is chaired by CAPHRI's Primary Care Cluster. The purpose of the BII, which is executed in close collaboration with the Department of Primary Care of the University of Oxford, is to stimulate research in primary care worldwide by advanced research training of internationally independently selected highly talented young researchers. There are liaisons with academic primary care groups worldwide, and with the World Organization of Family Doctors (WONCA). A comprehensive curriculum for primary care research training and an advanced international training context for PhD and MSc research students, have been developed and implemented. A number of talented post doc researchers of CAPHRI were selected for the first Brisbane cohorts and successfully trained.

### **The Exhaled Breath Condensator**

A recent development with potentially large societal and economic impact is the so-called Exhaled Breath Condensator (EBC), developed by Prof. Edward Dompeling in collaboration with Maastricht Instruments, a commercial enterprise that has branched off from Maastricht University and that translates scientific research into practical applications. The beauty of this instrument is that it eliminates the disruption children have to endure. The breath condenser cools and condenses the air breathed in through a tube. The proteinic substances in the condensate can then be studied for infectious substances. The EBC is far less invasive than a bronchoscope. Additionally, it makes it possible to perform diagnostic examinations of asthma in children as young as two years old in outpatient and primary care settings. Prof. Dompeling's group received

several ZonMw grants. The project has resulted in a patent, which has been filed.

### **NicVAX**

The important and influential German news website SPIEGEL ONLINE has called the vaccine against nicotine, investigated by a CAPHRI research group lead by Prof. Onno van Schayck, one of fifteen inventions with the potential to most radically improve our lives<sup>22</sup>. NicVAX is a vaccine that has been developed to help people effectively stop smoking and reduce the rate of and time before relapse. Several Maastricht-based trials have shown that NicVAX is safe and potentially immunogenic. The principal idea of NicVAX is that nicotine-specific antibodies bind and sequester nicotine in the serum, thus preventing nicotine from reaching the brain as antibodies are too large to cross the blood-brain barrier. NicVAX has been shown to be immunogenic in a number of animal species including rats, mice, rabbits, and goats. In summary, NicVAX-induced antibodies can block nicotine transport from plasma to the brain and can attenuate the behavioural and physiological effects of nicotine. These results support the concept of using vaccines to treat and prevent nicotine addiction. In 2008 a ZonMw TOP grant was obtained for measuring the efficacy and the mechanism of the drug by means of functional MRI and the ethical consequences of treating nicotine addiction by means of a vaccination are currently investigated. Patents for NicVAX have been filed by NABI-Pharmaceuticals, with whom CAPHRI collaborates.

### **Electronic Patient Dossiers**

The programme 'Comorbidity matters!' is studying the influence of co- and multimorbidity in guideline-driven Electronic Patient Dossiers (EPDs) and has become so successful in this effort that a business model has been developed and the company Fastguide established. A licence

for 4 dossiers (COPD, Claudicatio, RSI and Arthrosis) has been granted to Fastguide, who, as a result, became the intellectual owner of these dossiers. Fastguide trains and educates health care professionals in the use of guideline-driven care, markets networks and EPDs, and is a leading innovator in guideline-driven care. In 2009, it obtained the 'BSN keurmerk in de zorg' (a quality mark for the health care sector) and is becoming the backbone of major health care institutes and projects. Recently, €1 million subsidy was received for an implementation programme called OPTéMA, which was designed by the CAPHRI Musculoskeletal Disorders programme in cooperation with Fastguide and another company, McRoberts in The Hague. In the OPTéMA programme, optimal COPD care will be delivered by physiotherapists, who use self management programmes as an addition to guideline driven and proven effective care. Compliance with exercise programmes is measured with portable 3D accelerometer devices, allowing physiotherapists detailed information about patient progression. When rolled out in the south of the Netherlands, the annual cost will be around €900,000 for 10,000 patients, but annual savings will range from between €6 and €11 million per year. In October 2010 another €1 million subsidy was obtained from the 'innovatiefonds zorgverzekeraars' (innovation fund health insurance companies) for a project on Claudicatio.

#### **Primary health care innovation**

Through electronic patient registration in primary care it has also become relatively easy to analyse the quality of care actually delivered. Health care insurance companies increasingly use these data to challenge primary care organisations to deliver good quality care. To be able to improve care, the Eindhoven Primary Health Care Centres Foundation (SGE), which coordinates ten health care centres covering 60,000 patients, has invested in research. This has resulted in a very intensive collaboration

between CAPHRI and SGE. The investigators appointed as a result of this investment use a bottom-up strategy to develop pragmatic innovations in the fields COPD, depression, cardiovascular risk assessment, diabetes and physiotherapy.

<sup>22</sup> <http://www.spiegel.de/wissenschaft/technik/0,1518,694845-6,00.html>

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## Publications

### Key-publications

(for full text, see Annex 24 on the secluded website)

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1

**Cals JW, Butler CC, Hopstaken RM, Hood K, Dinant GJ.**

Effect of point of care testing for C reactive protein and training in communication skills on antibiotic use in lower respiratory tract infections: cluster randomised trial.

*BMJ* 2009; 338: b1374 (page 1-10)

2

**Diarra D, Stolina M, Polzer K, Zwerina J, Ominsky MS, Dwyer D, Korb A, Smolen J, Hoffmann M, Scheinecker C, van der Heide D, Landewe R, Lacey D, Richards WG, Schett G.**

Dickkopf-1 is a master regulator of joint remodeling.

*Nature Medicine* 2007; 13: 156 – 163

3

**Knottnerus JA, ten Velden GH**

Dutch doctors and their patients--effects of health care reform in the Netherlands.

*N Engl J Med.* 2007;357(24): 2424-6

4

**Decramer M, Rutten-van Mölken M, Dekhuijzen PNR, Troosters T, Herwaarden C van, Pellegrino R, Schayck CP van, Olivieri D, Del Donno M, Backer W de, Lankhorst I, Ardia A.**

Effects of N-acetylcysteine on outcomes in chronic obstructive pulmonary disease (Bronchitis Randomized on NAC Cost-Utility Study, BRONCUS): a randomised placebo-controlled trial.

*Lancet* 2005; 365:1552-1560

5

**Pengo V, Lensing AW, Prins MH, Marchiori A, Davidson BL, Tiozzo F, Albanese P, Biasiolo A, Pegoraro C, Iliceto S, Prandoni P.**

Incidence of chronic thromboembolic pulmonary hypertension after pulmonary embolism.

*N Engl J Med.* 2004; 350(22): 2257-64

### Number of articles in top 10% and top 25% of publications relevant to the discipline

In 2009 the Primary Care Cluster has published 318<sup>(a)</sup> articles in international (SCI/SSCI listed) peer-reviewed journals. 192 of these publications (60%) were published in the top 25% peer-reviewed journals relevant to the discipline and 109 (34%) in the top 10%.

### Selection of books

#### 1

**Dinant GJ, Spigt MG, Knottnerus JA. (2008)**  
*Praktische epidemiologie (Practical Epidemiology)*  
*In the series Practicum huisartsgeneeskunde.*  
*Maarsse: Elsevier gezondheidszorg.*  
*ISBN 13 9789035229976*

This book (and the next book mentioned) belong to the category of evidence based medicine. Results from relevant research in primary care are translated to daily clinical practice and vice versa.

#### 2

**Knottnerus JA, Buntinx F. (2009)**  
 The evidence base of clinical diagnosis  
*BMJ Books. Oxford: Wiley-Blackwell*  
*ISBN 978-1-4051-5787-2*

This unique book presents a framework for the strategy and methodology of diagnostic research, in relation to its relevance for practice. With contributions from leading international experts in evidence-based medicine, this book is an indispensable guide on how to conduct and interpret studies in clinical diagnosis.

#### 3

**Schayck CP van, Wesseling GJ.**  
 Leven met COPD  
*Dohn, Stafleu and van Loghum, Houten 2010.*  
*ISBN 9789031375790*

This book is very popular among patients and their relatives, and thus important, in terms of societal impact.

<sup>(a)</sup> Excluding the editorial materials

## Towards the future: strategy based on SWOT analysis

The cluster SWOT analysis for Primary Care is based on all the seven SWOT analyses, produced by the Primary Care programmes:

### Strengths

- 1 Power to obtain major grants to develop new and innovative products and services.
- 2 Highly qualified, knowledgeable and motivated staff, with an outstanding reputation at the national and international level.
- 3 Intensive and fruitful collaboration with leading groups in the Netherlands and abroad.
- 4 Close collaboration with professional groups through the network of academic family practices and two large primary care registration networks (RNH and SMILE).
- 5 Multidisciplinary approach including highly productive collaboration between primary care physicians and hospital specialists resulting in integrated care research projects.

### Weaknesses

- 1 Relationship with several non-academic extramural disciplines in the vicinity is underexplored.

### Opportunities

- 1 High societal interest for more cost-effective delivery of care.
- 2 Flexible, innovative thinking, entrepreneurship and the ability to respond effectively and anticipate future developments.

### Threats

- 1 Increased workload for participating clinicians, in the hospital as well as in primary care settings.
- 2 Increasing financial problems in Maastricht University Hospital, with the threat of substantial budget reductions for research, as the hospital prioritises patient care duties over research and puts staff members' research time under pressure.

### Strategy based on SWOT analysis

The research programmes, both in themselves and in mutual collaboration, are expected to be able to continue to extend and further improve their performance, according to the lines that have proven to be successful and productive. In setting the research agenda at the interface of science and society, innovative initiatives will be taken, in collaboration with extra-academic partners, such as patient organisations, manufacturers, and regional, national, and European authorities. These innovations will respond to and anticipate future developments in patient, healthcare and policy needs and will be based on our own scientific strengths.

In obtaining grants for research and development of innovative services and technologies, in addition to increasing our efforts to acquire national top grants from NWO and ZonMw, more attention will be paid to European (EU Framework Programme, ERF and ERC) opportunities, in a cost-effective balance between probability of funding and required investments of time and bureaucracy.

In collaboration with the Faculty FHML, the Cluster will continue to work for providing optimal career development opportunities, especially for the younger, highly talented staff members, in order to be competitive with external interested groups and keep them with us to grow towards future leadership. In this connection, the Cluster will also work to maintain the level of support from the Maastricht University Hospital, and to explore the opportunities for extending win-win collaborations in developing evidence-based, cost-effective implementations of new healthcare interventions at the interface of primary and hospital care.

Guided by scientific opportunities and required expertise, we will further extend our collaboration with leading national and international groups. We will further capitalise the enormous research potentials of our cohorts and the large primary care registration networks, and we will seek to increasingly harvest these potentials in collaboration with biomedical and clinical specialist disciplines, in order to strengthen the research into gene-environment interactions and into tailor-made, non-invasive ambulatory diagnostics and interventions.

In the region, we will develop and strengthen the relationships with non-academic extramural disciplines, especially in the fields of allied and paramedical care, and home care technology. For this purpose, structural contacts with regional institutions of higher education (e.g., the Hogeschool Zuyd) are already being developed. In addition, collaboration with the regional institution for clinical rehabilitation (Adelante) will be extended. Opportunities for extending the Euregional collaboration will also be explored, including the possibilities of shared appointments (which is already implemented in a few instances, for example, the collaboration with Leuven). These regional reinforcements and extensions are targeted in order to both further facilitate the Cluster's research and to increase its societal impact.

# Cluster 2: Innovation of Care

**Innovation of Care focuses on the development and evaluation of new concepts, interventions, technologies and strategies in chronic care and care for the frail elderly.**

### **Vision, Mission and Objectives**

The aim of the Cluster is to contribute to the improvement of the quality and effectiveness of chronic care. This is achieved by three means: by describing and analysing needs, wishes and health problems of chronic patients and the frail elderly; by developing concepts, interventions and strategies; and by stimulating practitioners to use new concepts, interventions and forms of organisation which have proven to be effective. The situation, capabilities, needs and wishes of chronic patients and the frail elderly form the starting point of the Cluster's work. If justifiable, health care workers have to give patients a central role in their care process and to activate them as far as possible. The interventions of health workers take place at various places in the chain of care. New forms of collaboration require attention to the organisation of care, the changing roles of professionals and technologies that support patients and health workers. Innovations are developed in close cooperation with practitioners and patient and consumer groups. This strengthens practical applicability and provides a firm basis for implementation. Innovations are evaluated from various perspectives: effectiveness, cost-effectiveness and normative consequences, while paying attention to content, process and structure.

## B.2.2

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### Composition of Cluster 2: Innovation of Care

Programme 1	Programme 2	Programme 3	Programme 4			
J. Hamers R. Kempen	B. Vrijhoef N. Schaper	S. Evers	T. vd Weijden			
Innovations in Health Care for the elderly	Redesigning Health Care	Health Technology Assessment	Implementation of Evidence			

## Research environment and embedding

One of the strengths of the Innovation of Care Cluster is its participation in strong innovative networks, at the regional, national and international level.

In chronic care as well as in care for the frail elderly, members are very active at the regional level. Since the mid-nineties members of the Cluster have worked in the Integrated Care department of the University Hospital and have played a very important role in the development of innovative care models for palliative care and care for patients with diabetes, COPD and heart failure. The new ideas that those staff members initiated and evaluated have attracted a lot of national and international attention. In chronic care, the Cluster works together with general practitioners, hospitals, medical specialists and home care organisations. Internationally, the Cluster is involved in important research and policy networks, such as the FP7-programme on disease management evaluation (Dimeval) and an intensive collaboration with the McColl Institute on Chronic Care (Seattle, USA).

The ACZIO (Academic Centre for Innovation of Care for Older People) network was the first of its kind in the national context, and serves as an example for similar initiatives. The Cluster traditionally has strong ties with the health care field and fruitful interactions with a wide scope of health institutions and professionals. In geriatric care, CAPHRI collaborates with the MeanderGroep Zuid-Limburg, Vivre and Sevagram, not least thanks to its Geriatric Nursing & Care and Geriatric Medicine chairs. In addition, CAPHRI staff work for these organisations towards the academisation of geriatric care, and the PhD candidates of these organisations are registered with CAPHRI.

One of CAPHRI's stakeholders, the Director of the *Huis voor de Zorg* (House of Care) in Limburg, Jo Maes, recognises the fact that there is a strong cooperation between CAPHRI and the care-field. According to Jo Maes "CAPHRI has

worked together with the *Huis voor de Zorg* more intensively than any of the other research and educational institutes. This distinguishes CAPHRI from other research institutes. It also demonstrates how highly CAPHRI values cooperation." Furthermore, this ensures that CAPHRI is in touch with the evolution of society and is, thus, able to anticipate (future) developments in the care sector. Although this is an important asset, the Cluster does not bring it enough to the attention of the public. An organisation such as the Julius Centre produces less but has an excellent PR-strategy. Another Dutch organisation in this field with strong ties to the health care sector is TRANZO, the scientific centre for care and welfare at Tilburg University. However, the Cluster collaborates with a wider scope of disciplines and pays more attention to the link between the content, organisation and process of chronic care. The Rotterdam based institute for Health Policy and Management (iBMG) is traditionally strong but is less focused on agenda-setting than the Maastricht Innovation of Care Cluster.

In the area of quality of care, the Centre for Evidence Based Practice (NCEBP) in Nijmegen has a strong tradition, whereas the Maastricht research programme 'Implementation of Evidence' is much younger. However, this research group, led by Trudy van der Weijden distinguishes itself by focusing on new research themes related to innovative care, such as 'patient empowerment' and 'shared decision making'. Another strong asset of the Cluster is the high level of innovative capacity in its research areas. This characteristic was a prerequisite to obtain innovative projects, such as CCTR. One of our partners in the CCTR project is the IBR, the research institute for social sciences and technology at Twente University. This organisation is stronger in the technological and logistical field and is, thus, complimentary to CAPHRI.

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Overall, the Innovation of Care Cluster has an important and strong position within the Dutch context. In the European arena, the Cluster has a prominent position, due to for example the international work of Prof. Vrijhoef on the Chronic Care Model. The EU-funded DISMEVAL project 'Developing and validating Disease Management Evaluation methods for European health care systems' has drawn worldwide attention.

### Quality and scientific relevance

According to the mid-term review in 2007, Cluster 2 is 'very good'. The content of this Cluster bridges the content of the two other clusters: Primary Care and Public Health. The quality of the Cluster had improved compared to the official external review in 2004.

As well as the national and international acknowledgement of the innovative power of the Innovation of Care Cluster, the data concerning the production of the Cluster demonstrates that its quality has continued to improve since the mid-term review. Cluster 2 has a considerable number of PhD graduates each year. 2007 and 2008 were particularly fruitful years in which more PhD students graduated than in the other two clusters (see Table 4). This is especially noteworthy as this Cluster has the lowest number of tenured staff (16fte in total).

Even though the number of staff has been reduced since 2004, from 62fte in 2004 to 57fte in 2009, the number of refereed publications has risen from 196 in 2004 to 225 in 2009. More than two-thirds (68%) of the 225 peer-reviewed 2009 articles were published in SCI-SSCI Journals. 46% of those publications (66) were published in the top 25% peer-reviewed journals relevant to the discipline and 31 (21%) in the top 10%.

Despite its lowest number of tenured staff, within CAPHRI the Cluster attracts most of the acquired funds. On average, over the past six years, this Cluster has obtained more than €2.5 million per year, of which most (approximately 70%) was contract research.

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After a long and thorough selection procedure CCTR was selected by NWO/ZonMw as an official Centre of Research Excellence (CoRE) to stimulate research related to medical devices. NWO is planning to fund €26 million in the next seven years.

## Highlights

### Reduction of physical restraints in nursing homes changed by law

Research in Programme Innovations in *Health Care for the Elderly*, focusing on the use and reduction of physical restraints, has resulted in important outcomes, both for science and clinical practice. Several studies have contributed to efforts in reducing the number of physical restraints in nursing homes housing residents with dementia. Referring to the Maastricht studies, on September 30, 2008 the then Dutch Secretary of State of Health, Welfare and Sport, M. Bussemaker, proposed to amend Dutch law with respect to the use of restraints. Furthermore, on November 18 of the same year, a declaration of intent was signed by all the stakeholders in the care of older people, striving to discontinue the use of belts in nursing homes in 2011. This led to a new law being proposed to the Dutch Parliament in June 2009 ('Kamerstuk' 31996)<sup>23</sup>. Researchers from our group were continuously consulted and have been actively involved in many initiatives (e.g. national campaigns '*Ik bind niet maar hou vast*' [I do not restrain, but hold] and '*zorg voor beter*' [care for better]), numerous workshops for nurses and physicians and national conferences for health care workers. Finally, at the request of broadcasters, the research group has contributed to several programmes on Dutch television (e.g. *Rondom tien*, *Teleac*, *LILT*) and newspapers (e.g. *de Volkskrant*, *Staatscourant* and *GPD group newspapers*), explaining the state-of-the-art current practice and the possibilities of reducing restraints and improving nursing home care.

### Redesigning Health Care advises the Minister of Health

On several occasions in 2009, researchers of Programme *Redesigning Health Care* were asked to advise the Ministry of Health, Welfare and Sports. Advice was given during the assessment of the feasibility of a web-based registry for donors and the evaluation of the introduction of the nurse practitioner in primary care. Minister Klink visited Maastricht to receive advice based on our experiences in the delivery of chronic care and its evaluation in the Maastricht region. During this meeting, he spoke with various researchers from the Redesigning Health Care programme. Moreover, he invited them to be present at the Ministry's Annual Conference on Chronic Care in The Hague. The researchers from this programme not only evaluate highly relevant developments in Dutch health care but, as best practice practitioners, are also regarded by the Ministry as important policy discussion partners.

### NIG TOP grant

Professor Luc de Witte recently obtained a large grant of €675,000 on behalf of CAPHRI for a programme that involves the development of an innovative approach to supporting patients with diabetes or COPD in their self-management regarding physical activity. This makes use of a new digital tool embedded in a health care programme based on shared decision-making and current insights into chronic disease management. The study aims to develop and evaluate an innovative digital monitoring and feedback tool, tailored to the needs of patients and professionals, which supports patients in their self-management role. The model could also possibly be used for other target groups with chronic diseases. The grant was awarded by ZonMw and is part of the NWO theme 'New Instruments for Health Care (NIG TOP)'. These prestigious TOP grants are awarded only occasionally.

### **NWO NIG-2: the Centre for Care Technology Research**

Within the framework of the prestigious NWO NIG programme, CAPHRI, Twente University and TNO (Netherlands Organisation for Applied Scientific Research) together proposed to develop a new research centre: a Centre for Care Technology Research (CCTR). After a long and thorough selection procedure this proposal was selected by NWO/ZonMw as an official Centre of Research Excellence (CoRE) in the context of the national IMDI (Innovative Medical Devices Initiative) to stimulate research related to medical devices. The centre focuses on extramural care and care related prevention supported by state-of-the-art technology. The CCTR partnership is an excellent mix of scientific, technical, industrial, health care and patient representatives. This combination makes it possible to develop technology that meets health care needs from different perspectives and that has a good chance of being adopted in policy and implemented in practice. The CCTR will work closely with a large number of partners from the health care field, DSM, IBM and other private enterprises (SMEs) and research partners, including Zuyd University of Applied Sciences and Saxion University of Applied Sciences. NWO is planning to fund €26 million in the next seven years.

### **Geriatric Care and ACZIO**

The Centre for Innovation of Care for the Elderly (ACZIO) plays an important role in the innovation of geriatric care, and is the first network of its kind. ACZIO was set up by CAPHRI and falls within the Maastricht UMC+. All parties in geriatric care are represented in ACZIO, from nursing and care homes to GPs, home care, hospitals and elderly people themselves. It is subsidised by the National Care for the Elderly programme. Altogether, ACZIO has received up until this moment an amount of over €8,7 million from ZonMw.

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<sup>23</sup> *Regels ten aanzien van zorg en dwang voor personen met een psychogeriatrische aandoening of een verstandelijke handicap (Wet zorg en dwang psychogeriatrische en verstandelijk gehandicapte cliënten) Vergaderjaar 2008-2009, Kamerstuk 31996 nr. 3. Te raadplegen sinds donderdag 9 juli 2009 (Staatscourant).*

Rules and regulations concerning care and pressure for persons who suffer from a psychogeriatric complaint or a mental handicap (Law care and pressure psycho-geriatric and mentally handicapped clients 2008-2009, Chamber piece 31996 nr. 3. Available since Thursday July 9<sup>th</sup> 2009.

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## Publications

### Key publications

(for full text, see Annex 24 on the secluded website)

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1

**Puhan MA, García-Aymerich J, Frey M, ter Riet G, Antó JM, Gómez FP, Rodríguez-Roisín R, Moons KGM, Kessels AG, Held U.**

Expansion of the prognostic assessment of patients with chronic obstructive pulmonary disease: the updated BODE index and the ADO index.

*Lancet* 2009; 374: 704-11

2

**Smeulders ESTF, Haastregt JCM van, Ambergen T, Janssen-Boyne JJJ, Eijk JThM van, Kempen GIJM.**

The impact of a self-management group programme on health behaviour and healthcare utilisation among congestive heart failure patients.

*Eur J Heart Fail* 2009; 11: 609-616

3

**van Schrojenstein Lantman-de Valk HM, Walsh PN.**

Managing health problems in people with intellectual disabilities.

*BMJ* 2008; 337: 1408-1412

4

**van Asselt AD, Dirksen CD, Arntz A, Giesen-Bloo JH, van Dyck R, Spinhoven P, van Tilburg W, Kremers IP, Nadort M, Severens JL.**

Out-patient psychotherapy for borderline personality disorder: cost-effectiveness of schema-focused therapy v. transference-focused psychotherapy.

*The British Journal of Psychiatry* 2008; 192: 450-457

5

**Zijlstra GAR, Haastregt JCM van, Rossum E van, Eijk JThM van, Yardley L, Kempen GIJM.**

Interventions to reduce fear of falling in community-living older people: a systematic review.

*J Am Geriatr Soc* 2007; 55: 603-615

### Number of articles in top 10% and top 25% of publications relevant to the discipline

In 2009 the Innovation of Care Cluster has published 145<sup>(a)</sup> articles in international (SCI/SSCI listed) peer-reviewed journals. 66 of these publications (46%) were published in the top 25% peer-reviewed journals relevant to the discipline and 31 (21%) in the top 10%.

<sup>(a)</sup> Excluding the editorial materials

### Selection of books

#### 1

**Spreeuwenberg C, Bakker DJ, Dillmann RJM (eds.). (2005)**  
 'Handboek Palliatieve Zorg' (Manual Palliative Care)  
*Elsevier Gezondheidszorg Maarssen.*  
*ISBN 13 9789035228016*

The manual palliative care is the very first manual that approaches the subject of palliative care in all its aspects in an integrated way. It is targeted at students, teachers and health care professionals.

#### 2

**Kort H, Cordia A, Witte L de. (2008)**  
 'Langdurige zorg en technologie'  
 (Long-term care and technology)  
*Den Haag: Uitgeverij Lemma, 2008*  
*ISBN 978-90-5931-485-6*

This book describes innovations in care that are made possible by the application of new technology. The book focuses on long-term care, such as home care, care for elderly people and care for disabled people, rather than on hospital care. It is targeted at students, teachers and health care professionals.

#### 3

**Maarse JAM.**  
 'Marktwerking in de Zorg: keuzevrijheid, solidariteit, toegankelijkheid, kwaliteit en betaalbaarheid'.  
 (Competition in Care: freedom of choice, solidarity, accessibility, quality and affordability).  
*In press.*

NWO-sponsored study, which analyses the impact of competition on key-values in health care. This book is targeted at policy-makers and students in the health care policy area.

## Towards the future: strategy based on SWOT analysis

### Strengths

1

Strong networks, on a regional, national and international level.

2

*Innovation of Care* is high on the political agenda. Staff members of the Cluster play an important role in the (inter)national policy arena on chronic care. Research within the Cluster has a strong societal impact and the research group is able to anticipate (future) developments in society. Therefore, the Maastricht Innovation of Care Cluster is involved in the political agenda-setting process, on a regional, national and European level.

3

Strong ties to the health care field and fruitful interaction with health professionals.

4

A high level of innovative capacity in new research areas.

5

High amount of funding capacity in major programmes:

- NPO (national Care for the elderly programme): 8.8 million (biggest in the country)
- ZonMw programmes (prestigious research funding)
- NWO NIG-2: CCTR
- KP7 (EU).

Analysing the SWOT analysis of the four programmes in Cluster 2 (Innovation of Health) it is possible to draw a few overall conclusions.

### Opportunities

1

The rise of the number of chronically ill patients and the frail elderly due to demographic developments and the increase of societal influences such as the focus on self-management and autonomy, will pose new challenges to health care. Innovation of care is becoming increasingly important. This applies not only to care processes (more efficient care, substitution of care) but also the application of technology in care, especially to support patients and to contribute to treatment.

2

There is a need for innovative and evidence-based solutions to deal with the growing target population, the upcoming manpower shortages, the changing role of the patient, etc.) and new advancing technology.

3

Traditionally there has always been a lot of interest in intramural care. However, the solutions for chronically ill patients and the frail elderly must be found mainly in the community, outside of the hospital walls.

### Weaknesses

1

It has proven difficult to attract and retain top medical specialist researchers for the Cluster.

2

Subjects such as *elderly people or chronic diseases* are not considered to be very 'sexy'. Therefore, it is difficult to attract students and motivated young researchers.

### Threats

1

Funding organisations are interested in simple solutions, whereas in reality solutions require multiple interventions that are interrelated. A so-called 'golden bullet' does not exist.

### Strategy based on SWOT analysis

There is no doubt the societal need for effective and efficient solutions for patients with chronic conditions and the frail elderly forms a big challenge for the health care system and health sciences. These challenges form the core of the Cluster's activities and require a focussed strategy for the coming years.

Although there are advantages of distinguishing care for specific chronic conditions from care for the frail elderly, the problems of the two populations have a lot in common. For both populations support of self-management, linkage of content of care with organisation of care, use of technology, new roles of professionals, co-operation with organisations outside health-care and the implementation of new concepts, will be important. Therefore, the collaboration between the different programmes within the Cluster must be strengthened further. Models like the Extended Chronic Care model can be taken as a focus of all activities of the Cluster. The focus on patient orientation, linkage between the content of care and its organisation and technology, underlines the need for multidisciplinary expertise within the Cluster and close co-operation with staff of the other clusters of CAPHRI, stakeholders for chronic care and the elderly and national and international scientists in this field.

Innovative changes of health care delivery are in urgent need for new and appropriate methodologies to determine their effectiveness and cost-effectiveness. The Cluster must contribute to develop these methodologies further. Within the Cluster there is a need for staff that has not only expertise in the different aspects that form the core of its mission but that are also able to connect the world of health care providers to managers and health policy makers. In light of this, the strategic decision that was taken to appoint a new, knowledgeable, key person, as a successor for the Cluster leader Prof. Cor Spreeuwenberg, who is familiar with health policy as well as with health problems of the two target populations where the Cluster focuses on, must be welcomed.

The fact that chronic care and care for the elderly will be delivered by professionals requires a close cooperation with staff from Cluster 1, while the fact that health promotion and prevention are crucial elements for chronic care and care for the elderly makes it necessary to cooperate with staff from Cluster 3.

The growth of the number of chronically ill patients and the frail elderly is a phenomena that all health care systems face. Therefore, international cooperation and exchange of ideas, strategies and evidence based results are of utmost importance. To keep its international position, the Cluster has to strengthen its international collaboration.

The Cluster has been successful in attracting external funding. The downside to this is that the Cluster is highly dependent on the availability of external programmes that fit with the Cluster's mission, as well as on the quality of the proposals by other groups. To keep its position, the Cluster has to formulate a strategy – e.g. by improving the internal review procedure before the application of a proposal - to get the acceptance rate even higher.

The recent acquisition of the Cluster was so high, that this will no doubt lead to a considerable amount of scientific output (publications and PhD graduations) and societal impact.

# **Cluster 3: Public Health**

## Vision, Mission and Objectives

Public Health has been defined by the RGO (2003) as ‘the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society’. The ultimate goal is to enhance quality of life. Although interventions towards public health may be very diverse, efficacy is in all cases most probable when activities are firmly rooted in theory and evidence. The mission of CAPHRI’s programmes in public health is to contribute to this scientific basis, to build theory and evidence and translate these into tailored solutions for societal health problems. Instruments and tools for sustainable and effective interventions are developed as well as methods to optimally deliver these solutions to individuals, networks, organisations, and national and international bodies. Sustainable change presupposes equity in health and health care and the development of best practices and an evidence base.

All CAPHRI’s programmes contribute to linking policy, practice and research. This includes many different stakeholders, e.g. citizens, policy makers, health care professionals, intervention developers, public health agencies and companies and organisations. The diversity of activities requires a multidisciplinary approach, combining methodological, philosophical, ethical, historical, social, legal, medical and psychological input. The Public Health Cluster unites all these disciplines. Within the Cluster, collaboration between the different stakeholders results in methodological pluriformity, matching method to research question. A number of interrelated recent developments in society and care are contributing to the importance and nature of public health activities: demographic changes (ageing population, but also cultural diversity), globalisation, economic changes resulting in an increase in labour participation and late retirement, the increased availability of information to the public and policymakers, the transfer of care and cure activities from the public to the private sector, the shift in emphasis from acute to chronic conditions,

from disease management to self-management, growing emphasis on personal accountability, expanding cure and care costs, the transition from patient-oriented perspectives to prevention, a shift from central, national initiatives to local activities, etc. With innovative research, the Public Health Cluster seeks to respond to these trends in a regulatory cycle: defining problems, establishing risk factors, studying the aetiology of health problems, diagnosing specific problems and contexts, and translating all this into interventions, implementing these interventions and evaluating the different stages. Scientific evidence and theory are part of each stage.

### Objectives

The Public Health Cluster aims to develop new models, theory, methodology and tools for a sustainable enhancement of quality of life, by gathering evidence, translating this into effective interventions for the right target group and making sure that the interventions are optimally delivered and received. Moreover the Cluster develops reflections on the social and ethical issues that the development of public health research and practices entails.

### Strategy

The programmes share a strong international orientation while work is often embedded in local practical and professional organisations in which the participation of the relevant stakeholders (including the municipal health department, occupational health services, companies, and health insurance companies) is involved. Effective public health interventions require an interdisciplinary approach that is innovative in terms of theory, methodology and normative reflection.

## B.3.2

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### Composition of Cluster 3: Public Health

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	
M. Berger G. van Breukelen	IJ. Kant	K. Horstman	N. de Vries H. de Vries	H. Brand	A. Brand	
Design and analysis of studies in health sciences	Occupational Health Epidemiology	Health Ethics and Society	Health Communication & Theory and Practice in Health Promotion	Comparative Health	Public Health Genomics	

### Research environment and embedding

The Maastricht MUMC+ offers excellent opportunities to extend the scope of public health research into applied domains in medicine and health sciences. Partnership with the University Hospital enables us to focus on integrated care, broadening the scope to include prevention and health promotion (thus, before entering the medical system), chronic care, and rehabilitation and reintegration (thus, after leaving the medical system).

Within the Dutch scientific community, the CAPHRI Public Health Cluster has an acknowledged position in terms of quantity and quality. There is no university where a similarly broad spectrum of disciplines coordinates their activities in public health research. The largest institutes can be found in Rotterdam and Vrije Universiteit Amsterdam; CAPHRI is much smaller but covers a wider range of public health issues by teaming up with medical and public health professionals in local and national organisations. Strong collaborative ties with fellow institutions exist, especially with those that also participate in the national school, CaRe. For some programmes in Public Health, international comparison is difficult. For instance, there are no similar groups that do research in normative aspects (Programme 3) by combining philosophy, sociology, ethics, gender studies and law; usually, groups focus on one of these disciplines. Many institutions focus on a disease (e.g. cancer) or on a certain aspect of public health (prevention, community health). However, as evidenced by the high number of international contacts and mutual visits and exchanges, CAPHRI's programmes in public health are highly-regarded and widely recognised.

### Quality and scientific relevance

The Cluster scores highly in terms of output and earning power. The latter is especially noteworthy: of the total amount of research funding the Cluster received in the period 2006 – 2008, for example, (in total €2,119,008), 77% comes from prestigious research grants that were obtained in national and international scientific competition. This is a strong indication that CAPHRI's public health research is perceived as high quality by the most influential funding organisations in the Netherlands (especially ZonMw). In 2008 the Cluster was responsible for the acquisition of 58% of the total CAPHRI research funds. On average, over the past 6 years, this Cluster has obtained nearly €2.2 million per year. Compared to the other clusters, this Cluster also has the most EU-projects.

Along with the Innovation of Care Cluster, the Public Health Cluster shows an increase in the number of refereed publications, from 154 in 2004 to 264 in 2009, whereas the number of staff has been reduced since 2004, from 66fte in 2004 to as low as 50fte in 2008; rising again to 62fte in 2009. On average, 71% of the refereed articles are published in SCI-SSCI Journals. In 2009, the Public Health Cluster published 179 articles in international (SCI/SSCI listed) peer-reviewed journals. 108 of these publications (60%) were published in the top 25% peer-reviewed journals relevant to the discipline and 68 (38%) in the top 10%.

The Cluster is also successful in economic valorisation. Even though the domain 'Public Health' traditionally is not renowned for its economic and business potential, the Cluster currently has 2 business ventures (see next page).

## Highlights

### **Limburg Academic Collaborative Centre**

The Limburg Academic Collaborative Centre (Academische Werkplaats Limburg) is a long-term partnership between Zuid-Limburg municipal public health department (GGD), 19 municipalities in Zuid-Limburg and the Maastricht UMC+. The main purpose of the academic collaborative centre is to improve cooperation and knowledge transfer between practitioners, policy-makers, researchers and the education sector, ultimately leading to accessible, high-quality evidence-based products, services and facilities in the field of public health. The application of knowledge is essential to the achievement of a strong public health infrastructure. There are currently 11 PhD students, from various departments in GGD. The centre is facilitated by the Netherlands Organisation for Health Research and Development (ZonMw, The Hague). Recently ZonMw agreed to finance the Limburg Academic Collaborative Centre for another 4 years (2010 – 2014). Furthermore, ZonMw will allocate another €900,000 for several projects.

### **Balance Meter predicts long-term sick leave**

ABN AMRO Occupational Health Services and the University of Maastricht have developed a screening instrument capable of predicting prolonged sickness absence. This instrument, a questionnaire about work and home life known as the 'Balance Meter', has been externally validated in a study conducted among 12,000 ABN AMRO employees. The study shows that the Balance Metre is capable of predicting which employees have an increased risk of future protracted sickness absence. Employees who are identified by the instrument as high-risk cases have between 8 and 16 times more chance of taking long-term sick leave. This creates the possibility of applying targeted early intervention counselling. The rate of sick leave following counselling on the basis of a prediction by the Balance Metre of an increased risk of sick leave turned out to be 35% lower than that of staff who did not receive such counselling.

Substantial research valorisation was gained through further development and exploitation of this instrument in a joint venture between Maastricht University, ABN AMRO Occupational Health Services and ACHMEA Vitale.

### **Vision2Health**

Vision2Health is a company in which CAPHRI's department of Health Promotion, together with Biomedbooster<sup>24</sup> collaborates with OSE Overnite to implement evidence based computer tailored programmes, developed by the Health Communication and Health Promotion research programme. The concept behind the company is that the implementation of evidence based scientific knowledge needs to be stimulated, a process also referred to as 'valorisation of scientific knowledge'. Vision2Health is directed by Harry Lardinois and Prof. Hein de Vries. Currently, the company has licensed its skin cancer prevention programme to the Dutch Cancer Society, and negotiations with other groups (e.g. GP practices and worksites) are currently undergoing. Computer tailored programmes that are offered concern, for example, health behaviour risk appraisal, smoking cessation, alcohol, physical activity, nutrition and skin cancer.

### **Prestigious VENI grants**

Rik Crutzen and Liesbeth van Osch, both employed at the Department of Health Promotion, were awarded the prestigious VENI grant from the NWO Division for the Social Sciences in July 2010. In his research, Rik Crutzen will continue his focus on the use of technology, especially the Internet, within the field of health promotion. His aim is to optimise the user experience and, thereby, improve the public health impact of Internet-delivered interventions. Liesbeth van Osch will target the difficulties people experience when translating their good intentions into healthy behaviour. She will investigate the effectiveness of planning strategies in bridging this intention – behaviour gap.

**North - South collaboration in the area of health promotion**

Within the Public Health Cluster there is extensive cooperation with academics and institutions from countries in the Southern Hemisphere. Since 1989, when the department of Health Promotion started to collaborate with the 'Universidad de El Salvador' (UES), the Public Health Cluster has been involved in, often large scale, collaboration projects in the developing world, aiming at institutional capacity building and human resources development. These projects are facilitated by MUNDO, the Maastricht University Centre for International Cooperation in Academic Development. The Cluster currently participates in projects in Vietnam (Hanoi Medical University), Indonesia (Universitas Gadjah Mada, Yogyakarta), Mozambique (Ministry of Education, Science and Technology –MESCT-) and South Africa (University KwaZulu Natal). Two projects in El Salvador and Nicaragua were recently finished. In addition, there is a Memorandum of Understanding with the South-African Medical Research Council which has not only led to staff exchange and honorary consultancies, but also to approximately ten PhD projects. Furthermore, there are PhD candidates from all over the world preparing their PhD thesis supervised by CAPHRI staff. The PhD candidates come from countries such as Colombia, Suriname, Sudan, Kenya, Tanzania, Nigeria, Lebanon, Saudi-Arabia, India and Vietnam. CAPHRI's international links are exemplified in the Master of Public Health for Professionals and in the Master of Global Health. Furthermore, the Cluster participates in a large scale EU project 'PREPARE', whose aim is to develop new and innovative programmes for the promotion of healthy sexual practices among young people in their early adolescence.

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<sup>24</sup> Biomedbooster is a Maastricht-based Centre for Technology Transfer.

## Publications

### Key-publications

(for full text see Annex 24 on the secluded website)

### Number of articles in top 10% and top 25% of publications relevant to the discipline

1

**Anderson P, Chisholm D, Fuhr DC.**

Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet* 2009; 373: 2234–2246

2

**Gurwitz D, Fortier I, Lunshof, JE, Knoppers BM.**

Research ethics. Children and population biobanks. *Science*. 2009 Aug 14; 325(5942): 818-819

3

**Prainsack B, Reardon J, Hindmarsh R, Gottweis H, Naue U, Lunshof JE.**

Misdirected precaution. *Nature* 2008; 456: 34-35

4

**Leone SS, Huibers MJ, Kant I, Van Schayck CP, Bleijenberg G, André Knottnerus J.**

Long-term predictors of outcome in fatigued employees on sick leave: a 4-year follow-up study. *Psychological Medicine* 2006; 36: 1293-1300

5

**De Vries H, Mesters I, Van 't Riet J, Willems K, Reubsaet A.**

Motives of Belgian adolescents' for using sunscreen: the role of action plans. *Cancer Epidemiol Biomarkers Prev* 2006; 15 (7): 1360-1366

In 2009 the Public Health Cluster has published 179<sup>(a)</sup> articles in international (SCI/SSCI listed) peer-reviewed journals. 108 of these publications (60%) were published in the top 25% peer-reviewed journals relevant to the discipline and 68 (38%) in the top 10%.

<sup>(a)</sup> Excluding the editorial materials

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### Selection of books

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1

**Dijker AJM, Koomen W. (2007)**

Stigmatization, tolerance, and repair: An integrative psychological analysis of responses to deviance. Cambridge:

*Cambridge University Press*

ISBN 9780521793681

This book is widely used as a standard text on stigmatisation by researchers and students in the social and health sciences. The book also identifies potentially stigmatising side-effects of health promotion programmes. Consequently, it argues for the need to develop an integrative vision on healthy behaviour and (nonjudgmental) care for the ill and disabled.

2

**Horstman K, Houtepen R (2005)**

*'Worstelen met gezond leven. Ethiek in de preventie van hart- en vaatziekten'* (To struggle with healthy living. Ethics in cardiovascular disease prevention).

*Amsterdam, Het Spinhuis*

ISBN 9780521793681

This book has had a lot of influence in the Netherlands, as it reveals, based on ethnographic research among participants of prevention programmes, professionals and policy-advisors, the limitations of top-down organised prevention programmes. The book argues that these prevention programmes must have an ethical, as well as a scientific, legitimacy.

3

**Vries G de, Horstman K [eds.] (2008)**

Genetics from laboratory to society. Societal learning as an alternative to regulation.

*Basingstoke, Palgrave MacMillan*

ISBN 978-0-230-00535-8

This book was reviewed by the series editors of Health, Technology and Society, and was selected for the high quality Palgrave series, because it provides a refreshing perspective on the interactions between science and society in the development and use of genetic testing.

### Towards the future: strategy based on SWOT analysis

#### Strengths

1

The Maastricht Public Health Cluster is involved in agenda-setting on a local, regional, national and European level. This is the case for the political as well as the scientific arena.

2

Programmes in the cluster are well connected to the national and international research community to:

- national organisations such as the *Dutch Cancer Society* and the *Smoking and Health Foundation*
- the health field for example the hospital, local health authorities and national bodies
- professional organisations in public health in Europe (EUPHA, ASPHER, IUHPE, EuroHealthNet) as well as the European Commission.

3

The Cluster's translational research covers the whole regulatory cycle in policy, practice and science. Programmes in the Cluster have a unique position as an interface between policy, practice and research.

4

There is a great diversity in approaches and methodical pluriformity. Often the methodology used is innovative (for example optimal design expertise or evidence-based computer-tailored research).

5

The Cluster participates in a number of unique cohorts, such as SMILE (lifestyle) and MCS (relationship between work and health).

**Based on the individual SWOT analyses of the 6 Public Health programmes, the following overall SWOT for the Public Health Cluster was made.**

#### Weaknesses

1

Internal cohesion: there is cooperation in research and science but less in addressing underlying strategic and societal problems and coordinating the stance taken towards these challenges.

2

Methods and designs differ from those of other Clusters; the multidisciplinary and diversity of the research topics demand this. A 'burden of proof' regarding these methods lies with the Cluster because sometimes they are less common or well-developed.

3

Cohorts are expensive and time-consuming infrastructures.

4

The strong translational orientation towards practice and policy is sometimes at odds with the more fundamental research.

## Opportunities

1

There is a clear shift in public and political interest away from patient care to prevention, and from acute to chronic diseases.

2

The availability of information (data, biobanks, Internet, etc.) at all levels of society also creates a need for support in the interpretation capacity of all stakeholders (persons and institutions). A new professional who brings the information overload back to manageable proportions is needed.

3

Strong and still increasing interest from the Euroregional and European policy and practice field.

## Threats

1

Some programmes have low visibility in Maastricht UMC+; after all, 90% of Public Health activities do not take place in the hospital.

2

Unrealistic expectations concerning 'quick fix solutions' for public health problems exist in the medical and political field.

### Towards the future

The strong national and international position in bridging research, policy and practice by interdisciplinary work needs to be consolidated and extended. The appointment of staff members and visiting professors from abroad, with profiles on the borders of programmes and clusters will serve this purpose. More emphasis on EU grants will also help in this respect. At the same time, disciplinary positions should be strengthened e.g. by gaining more grants in the VENI, VIDI, VICI scheme. The methodological basis for public health research should be further developed. The multidisciplinary and interdisciplinary nature of the Public Health Cluster demands a strengthening of ties between programmes, though more so in strategic and methodological discussions than in actual research projects (as these already exist). For instance, the Cluster should react adaptively as a group, both in teaching and in research, to the availability of (health) information to the public and to institutions, and the new demands that this poses to the sector. The Cluster should also coordinate efforts to increase its visibility and position within the largely biomedical arena of MUMC+; the shift towards more extramural work (from care to prevention, from acute to chronic) should be responded to. In summary, the internal structure of the Public Health Cluster could be strengthened, thereby facilitating interaction with the environment in research, practice and policy.



# Abilities

## C

# C

# Appendices



# Appendices / Annex 1

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## List of abbreviations

ACZIO	<i>Academisch Centrum Zorginnovatie Ouderen</i> (Academic Centre for Innovation of Care for older people)
AIO	<i>Assistent in Opleiding</i> (PhD candidate)
BII	Brisbane International Initiative
CCTR	Centre for Care Technology Research
CoRE	Centre of Research Excellence
CTCM	Clinical Trial Center Maastricht
CWTS	Centre for Science and Technology Studies
DG SANCO	General Directorate for Health and Consumer Protection - EU
ECOS	<i>Erkenningscommissie Onderzoeksscholen</i> (‘recognition committee research schools’, installed by the KNAW as of 22-10-1991)
EMGO+	Institute for Health and Care Research at VU Medical Centre
ERC	External Review Committee
ESF	European Science Foundation
EU	European Union
FES	<i>Fonds Economische Structuurversterking</i> (Fund Economical Structure Strengthening)
Fte	Full time equivalents
GGD	<i>Gemeentelijke Gezondheids Dienst</i> (Municipal Health Department)
HTA	Health Technology Assessment
HSRM	Health Sciences Research Master
IMDI	Innovative Medical Devices Initiative
KNAW	<i>Koninklijke Nederlandse Akademie van Wetenschappen</i> (Royal Netherlands Academy of Arts and Science)
KWF	Dutch Cancer Society
MESCT	Ministry of Education, Science and Technology (Mozambique)
METIS	Research Information Database System
MRC	Mid-term Review Committee
NCEBP	Nijmegen Centre for Evidence Based Practice (UMC St Radboud Nijmegen)
NIVEL	Netherlands Institute for Health Services Research
NWO	<i>Nederlandse organisatie voor Wetenschappelijk Onderzoek</i> (The Netherlands organisation for Scientific Research)
PHGEN	Public Health Genomics European Network
RNH	<i>RegistratieNet Huisartspraktijken</i> (Registration Network Family Practices)
RVE	<i>Resultaat Verantwoordelijke Eenheid</i> (Performance Based Unit)
SEP	Standard Evaluation Protocol
SME	Small and Medium Enterprises
SMILE	Study of Medical Information and Lifestyle in Eindhoven
SWOT	(Analysis of) Strengths, Weaknesses, Opportunities and Threats
TNO	Netherlands Organization for Applied Scientific Research
TRIMBOS	Centre of Expertise on Mental Health and Addiction
UMC	University Medical Centre
VSNU	<i>Vereniging Samenwerkende Nederlandse Universiteiten</i> (Association of Universities in the Netherlands)
ZKO	<i>Multidisciplinaire Ketens voor Zorg, Onderwijs, Opleiding en Onderzoek</i> (Multidisciplinary chains for care, education, training and research)

# **Assessment of Research Quality**

**Report of the external review committee  
Mid-term evaluation 2004-2006  
December 2007**

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<sup>1</sup> This reprint of the Mid-term review report does not include any annexes and is printed using a smaller font than the original document. The text however is exactly the same.

## Introduction

### Scope and context of this review

This report presents the results of the evaluation of the ‘School for Public Health and Primary Care: CAPHRI’ by an external review committee. Although the (former) research institute CAPHRI has been officially assessed by an international review committee in December 2004, this review is carried out at a special request of the dean of the Faculty of Health, Medicine and Life Sciences and the directors of CAPHRI to support the self-evaluation at mid-term, which according to the SEP protocol has to be done three years after the ERC-report appeared. An important objective of this review is to see whether the programme structure works well and contributes to a solution to the problems related to the complex managerial structure recognized in the last external review. The School for Public Health and Primary Care: CAPHRI is in the midst of a rapidly changing internal and external environment. The advice of an external review committee will be used as a major tool for the Board and Management of the School to sustain and improve the quality of its research and education programmes and to underpin strategic decisions. The evaluation of the School was done according to the rules set in the Standard Evaluation Protocol (SEP), which is developed as an evaluation system for publicly funded research in the Netherlands and approved by the Royal Academy of Arts and Sciences (KNAW), the Netherlands Foundation for Scientific Research (NWO) and the Association for Co-operating Dutch Universities (VSNU). Following the guidelines of the Standard Evaluation Protocol a self-evaluation report was produced by the School. To enhance readability throughout this document ‘the School for Public Health and Primary Care: CAPHRI’ will be simply referred to as ‘the School’ or ‘CAPHRI’.

### The composition of the Review Committee

The Review Committee as officially installed by the dean of the Faculty of Health, Medicine and Life Sciences, consists of the following persons:

- Prof. H.F.J.M. Crebolder, MD PhD, chairman CAPHRI Advisory Council, emeritus professor of General Practice, Maastricht University
- Prof. J. Bensing, PhD, professor of Health Psychology, Utrecht University and director of NIVEL (the Netherlands Institute for Health Services Research).
- Prof. G.A.M. van den Bos, PhD, professor of Social Medicine, Academic Medical Centre, University of Amsterdam
- Prof. G. Kok, MSc PhD, professor of Applied Psychology, Maastricht University
- Prof. P. van der Maas, MD PhD, professor of Public Health and former dean, ERASMUS Medical Centre, Rotterdam.
- Prof. H. Struijker Boudier, MD PhD, professor of Pharmacology, former director of Research Institute CARIM, Maastricht University
- Prof. H.C.W. de Vet, MSc PhD, professor of Clinimetrics, EMGO Institute of VU University Medical Center, Amsterdam
- I. Leijts, MPH, secretary to the Committee, dean’s office, FHML, Maastricht University

Prof. H.C.W. de Vet was unable to attend the official review on 28-30 October. Nevertheless, she has thoroughly studied the self-evaluation report and her valuable comments were taken into account by the review committee.

Four of the members of the committee<sup>2</sup> are at the same time external members of the CAPHRI Advisory Council.

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<sup>2</sup> Prof. H.F.J.M. Crebolder, Prof. G. Kok, Prof. G.A.M. van den Bos and Prof. H.C.W. de Vet.

### **Terms of Reference**

At the installation of the Review Committee, the dean of the Faculty of Health, Medicine and Life Sciences has specified the following specific questions to which the faculty board would like to receive the advice of the ERC:

**1**

What is the scientific quality of the School for Public health and Primary Care: CAPHRI, judged according to the KNAW-SEP standards:

- Quality (international recognition and innovative potential)
- Productivity (scientific output)
- Relevance (scientific and socio-economic impact)
- Vitality and feasibility (flexibility, management, and leadership).

**2**

What is the national and international position of the School?

**3**

Were the three clusters (Primary Care, Innovation of Care and Public Health) chosen right, considering the developments in the field and the ambitions of the School?

**4**

Is the structure and organization of the School in 15 programmes considered to be adequate? Is it necessary to amalgamate certain programmes? Are there any programmes that should be discontinued?

**5**

According to the judgment of the committee, which programmes should definitely be continued because of its quality and estimated future perspective?

**6**

Are there any areas in the School that need to be strengthened, especially at the level of postdoc-positions and possible Chairs.

**7**

Is it possible to develop the School into an international Centre of Excellence in the area of Primary Care? What would be the most appropriate strategy to reach this goal?

### **Mode of operation**

The site visit took place on October 28 – 30, 2007. The programme of the review started with an official dinner and a closed session in which the working procedure and main issues of the review were discussed. The following day started with a session open to the public. This session included presentations on the School as a whole and on the three clusters separately. Furthermore there were discussions with three programme leaders, a delegation of PhD students, the coordinators of the master's programmes, the heads of the relevant departments, representatives of the board of the academic hospital and the dean of the FHML together with a member of the faculty board who holds the research portfolio. At the end of the programme, before the presentation of the preliminary results, a final interview with the scientific directors was planned in order for the committee to discuss their general impression, ask additional questions and have an in-depth conversation about some suggestions. After this final discussion, the preliminary results of the ERC were drafted in a closed session and finally presented in a plenary session with the member of the faculty board who holds the research portfolio, the scientific directors of the institute and the programme leaders.

### Evaluation Scale<sup>3</sup>

The Committee used the evaluation scale to evaluate the institute on the following aspects: leadership, mission and goals, strategy and policy, adequacy of the resources, funding policies, facilities, academic reputation, societal relevance and balance of strength and weaknesses. With respect to the clusters the overall quality of the research programme was rated. The ratings were on a scale of 1-5.

**5**

#### **Excellent**

Work that is at the forefront internationally, and which most likely will have an important and substantial impact in the field. Institute is considered an international leader.

**4**

#### **Very good**

Work that is internationally competitive and is expected to make a significant contribution; nationally speaking at the forefront in the field. Institute is considered international player, national leader.

**3**

#### **Good**

Work that is competitive at the national level and will probably make a valuable contribution in the international field. Institute is considered internationally visible and a national player.

**2**

#### **Satisfactory**

Work that is solid but not exciting, will add to our understanding and is in principle worthy of support. It is considered of less priority than work in the above categories. Institute is nationally visible.

**1**

#### **Unsatisfactory**

Work that is neither solid nor exciting, flawed in the scientific and or technical approach, repetitions of other work, etc. Work not worthy of pursuing.

## Evaluation

### Overall impression

#### **Quality and managerial structure**

The School for Public Health and Primary Care: CAPHRI has come a long way since the last external review in December 2004. The School comes across as a strong institute with a very good performance. Compared to the situation three years ago at the time of the ERC, the organizational structure has improved considerably. The new managerial structure has laid the foundation for further improvement of the School's overall scientific quality.

**In terms of assessment ratings, the overall score is very good to excellent.**

The ERC has some important remarks, which are stated below.

#### **Leadership**

The leadership of the School is efficient. As opposed to other FHML Schools CAPHRI has a scientific director and a scientific co-director. This seems to work very well and both directors complement each other.

#### **Societal impact**

Although the self-evaluation indicates that the School considers societal impact of utmost importance, this is not yet sufficiently visible. The School has recently started to measure societal impact according to a number of indicators. The ERC would have liked to learn of examples of CAPHRI research projects that have had clear impact in society. This was missing in the self-evaluation. There seems to be a lot of potential in terms of societal impact and it is clear that the process has been set in motion, but it has to be made more visible to the outside world. Therefore the ERC recommends professionalizing the concept of societal impact in the culture of the School.

#### **Maastricht UMC+**

The establishment of the University Medical Centre in Maastricht (Maastricht UMC+) will certainly have consequences

<sup>3</sup> VSNU, NWO, KNAW (2003). Standard Evaluation Protocol 2003 – 2009 for Public Research Organisations, Utrecht.

for CAPHRI. The School will have a special position in the multidisciplinary 'chains for care, education, research and training (ZKO's)' as a so-called 'linking profile'. As it reads in the self-evaluation: *The prominent position of public health and primary care is crucial for the distinctive profile adopted by Maastricht UMC+: an approach which does not limit itself to specialised medicine, but adopts an integrated approach to the entire spectrum of health and disease.*

The ERC supports CAPHRI's decision to concentrate on two out of four ZKOs ('Chronic Diseases' and 'Cardiovascular diseases'). The position of CAPHRI as linking profile has potential but this requires strong leadership.

It became clear that CAPHRI is concerned about the transparency of the financial management and administration of jointly acquired research funding by the academic hospital. The fact that some means acquired by CAPHRI were invisible to the university administration and thus did not count in the earning power has resulted in an underestimation of the School's external funding. This is an undesirable situation for CAPHRI, also in terms of PR. Hopefully a positive effect of the development of Maastricht UMC+ will be that its overall managerial and financial system will become much more transparent. The system should be such that it is absolutely clear which group/school has acquired which funding and what it is meant for. The responsible group/school should be granted clear insight into the spending of the money and the power to decide what it should be spent on.

The ERC would like to stress that the concept of a linking profile of public health and primary care can only be successful if the academic hospital management is committed to developing an extensive knowledge centre focussing on the entire spectrum of health and disease, from health promotion aimed at the general public to specialist patient care, both within and outside the hospital walls.

A point of attention is the out-of-hours GP cooperative, located at the emergency department of the University Hospital. With a caseload of ca. 50.000 contacts per year (serving a population of 175.000 people) this is a potential opportunity for (transmural) research, as all contacts are registered according to the International Classification Primary Care (ICPC).

#### **Awards and prestigious research grants**

The ERC noticed that the School has received relatively few awards and prestigious individual research grants over the past three years. This could be related to the low visibility of the School. Enhancing the Public Relations policy of the School could have a positive effect on the profile. Furthermore, the research staff should be given the opportunity to excel (see Talent scouting, page 123).

### **Evaluation of the three clusters**

The programmes have been grouped together into three clusters, which are chosen well. As such the three clusters have a clear image, which should be strengthened. The cluster leaders have an important role, as a scientific leader and a source of inspiration, with an international orientation and network. The ERC agrees with the explicit strategy of the School to avoid creating an additional management layer between the programmes and the directors. The cluster leaders have indicated not to have any ambition in that area. To stimulate cohesion in the clusters it is recommended to organise cluster-meetings on a regular basis, in which cluster-specific information is exchanged. For these meetings international guests and visiting professors could be invited. This could work both ways: internally the feeling of belonging to a cluster could be strengthened, whereas at the same time it will enhance the visibility of the cluster.

### ***Cluster 1: Primary Care***

The cluster primary care comes across as a strong and coherent group with a clear mission. The scientific performance of the group is impressive. The cohort studies and underlying data-bases are a strong asset, which could be used to further strengthen international cooperation. The broad scope of the cohort studies is a strong point in terms of multi-morbidity and consequent multi-treatment, but at the same time it can be considered a point of attention as in general the most successful cohort-studies are the ones with a strong focus.

### ***Cluster 2: Innovation of Care***

The overall assessment of cluster 2: Innovation of Care is very good. The content of this cluster bridges the content of the two other clusters: Primary Care and Public Health. A point of concern is the fact that the cluster-leader, Prof. dr. C. Spreeuwenberg, is relatively close to his retirement. This means that the School should start thinking about a worthy successor.

### ***Cluster 3: Public Health***

The ERC regards every aspect of the Public Health cluster as very good. A strong focal point in this cluster is health promotion. As health promotion is such a strong selling point at a national and international level it would even be conceivable to change the name of the cluster into 'Health Promotion'. The cooperation with the Municipal Health Department is a promising development which will strengthen the output and quality of this cluster.

## Cluster 1: Primary Care

Overall Quality of cluster 1	excellent	5
Overall Productivity of cluster 1	excellent	5
Overall Relevance of cluster 1	very good	4
Overall Vitality and Feasibility of cluster 1	excellent	5
<b>General assessment of cluster 1</b>	<b>excellent</b>	<b>5</b>

## Cluster 2: Innovation of Care

Overall Quality of cluster 2	good to very good	3,5
Overall Productivity of cluster 2	very good	4
Overall Relevance of cluster 2	very good	4
Overall Vitality and Feasibility of cluster 2	very good	4
<b>General assessment of cluster 2</b>	<b>very good</b>	<b>4</b>

## Cluster 3: Public Health

Overall Quality of cluster 3	very good	4
Overall Productivity of cluster 3	very good	4
Overall Relevance of cluster 3	very good	4
Overall Vitality and Feasibility of cluster 3	very good	4
<b>General assessment of cluster 3</b>	<b>very good</b>	<b>4</b>

### **National and International position of the School**

In general, the School should change its orientation from internal to external, and consequently from national to international. It is clear that the process of extensive re-designing of the managerial structure has taken up time and energy. It is now paying off in terms of output. Compared to the last review in 2004, the quality has further improved.

However, although the School is overall of high quality, clear international benchmarking is missing. The visibility of the School and its researchers needs to be enlarged. This requires a clear and professional Public Relations policy. Within all of this it is important to pay attention to the nomenclature of the School, which should be steady at all times and clear. Furthermore, the School should put effort into developing and optimising strategic alliances, both at a national and an international level.

A special point of attention is the name of the School (School for Public Health and Primary Care: CAPHRI). As such the name covers only two out of three clusters and is considered to be too complicated. The School was officially established on the 1st of July 2007, 4 months before this review. All researchers were asked to start using the new name in all their communications, but the name has not ingrained in peoples memory yet. The committee therefore recommends changing the name of the School as soon as possible into something simpler, recognizable and lasting, which does justice to the three underlying clusters. For PR-reasons it would also be good to include 'Maastricht' in the name, so people will have an immediate reference point.

### **Programme structure**

Since the last ERC in December 2004, drastic measures were taken to develop a managerial structure which would be practical and support high quality output, both in terms of research and education. The division structure was replaced by a programme-structure, putting emphasis on the research programme as the natural research unit. All interviewed CAPHRI staff support the programme structure. The structure leads to more flexibility and decisiveness. There are plenty examples of projects exceeding the borders of the programmes and even projects that combine expertise out of different clusters. Furthermore, the small scale of the programmes enhances the transparency: it will be impossible for weaker groups to hide behind the good performance of a large group. In general, people are happy with this structure and it works. Therefore it should not be altered.

However, in terms of PR and visibility, there is a downside to this structure. A research group, such as health promotion needs mass in order to be recognized as an important player in the field. This is true for a number of programmes. Therefore the ERC recommends, in due time, to combine the following programmes:

**1**  
Cluster Primary Care: programmes 1.1 and 1.3 '*Epidemiology of musculoskeletal disorders*' and '*Effectiveness of Diagnosis and Intervention in patients with Rheumatic diseases*'.

**2**  
Cluster Public Health: programmes 3.4 and 3.5 '*Health communication*' and '*Theory and Practice in Health Promotion*'.

There are two further combinations possible, one in the area of health ethics and one in the area of health technology assessment, but they exceed the borders of the clusters, which could make the process of combining more difficult:

**3**  
Clusters Innovation of Care and Public Health: programmes 2.3 and 3.3 '*Autonomy and participation in chronic care*' and '*normative aspects of Biomedical and Public Health Technologies*'.

**4**  
Clusters Innovation of Care and Public Health: programmes 2.4 and 3.1 '*Health technology assessment*' and '*design and analysis of studies in health sciences*'.

Although the ERC is convinced that amalgamating the programmes mentioned above would be beneficial to CAPHRI, an important note should be made. It is clear that the programmes as they are at the moment work and are productive. Enforcing a sudden change upon these programmes could take the wind out of their sails, which is obviously an undesirable situation. Therefore it is recommended to approach this subject with great care.

In general programmes should get the chance to prove themselves and build a strong profile. The ERC can not point out any programme that is not up to scratch and should be discontinued. The ERC supports the School's policy to optimize the quality of research at the programme level. Each programme is expected to meet a clear set of output

criteria. If it does not meet those criteria over a period of three years, it will be discontinued. As such the programme structure is flexible. All existing programmes fit well into CAPHRI's mission, have a good academic reputation, are relevant and have good prospects.

### Master Programmes

CAPHRI became responsible for providing master-level education when they were officially appointed a School by the 1st of July this year. The existing FHML master programmes in the area of health sciences were integrated into the School as they were. This means that the process of embedment into the School has only just begun. The ERC recommends to link the content of the master programmes as much as possible to the content of the three clusters. This would for example mean that visiting professors with expertise in one of CAPHRI's research programmes/clusters could also contribute to one of the master programmes. In that way the educational programme and the research programme of CAPHRI will reinforce each other and both will benefit from the fact that they are integrated into one School.

Furthermore, the Health Science Research Master (HSRM) in special and the other master programmes in general are important sources for scouting talents among the students, as will be explained in the next paragraph.

### Talent scouting

The ERC supports the HRM-strategy of the School aimed at scouting and supporting talented staff, as described in the self-evaluation. The strategy is twofold: on the one level CAPHRI aims to recognize, stimulate and support talents among their students and staff and secondly CAPHRI is willing to invest in scouting and attracting top talent.

It became clear to the ERC that CAPHRI in general puts a lot of work into the scouting of talents among their students. This was mentioned by the coordinators of the regular master-programmes as well as by the coordinator of the HSRM. CAPHRI used to have a so-called '*kweekvijverbeleid*' (breeding ground policy) which had to be stopped because of lack of resources. The ERC would advise to revive this policy again.

CAPHRI wants to be more successful in attracting prestigious individual research grants, such as the NWO (Dutch Scientific Organisation) '*Vernieuwingsimpuls*'<sup>4</sup>. One of the conclusions they have taken is that they want to stimulate their research staff to acquire adequate experience abroad to enrich their CV's. The ERC fully subscribes to this viewpoint and likes to add to this that research staff should be allowed sufficient time to work on their scientific output and on the acquisition of funds.

In reaction to the question of the dean, which new professors should be attracted or which new chairs should be created, the ERC is of the opinion that it should be geared towards the strengthening of the field of Primary Care, whilst at the same time it should strengthen the cooperation between the three clusters.

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<sup>4</sup> Prestigious personal research grants, at the level of 0-3 years after finalising a PhD (VENI grant), 5-8 years after finalising a PhD (VIDI grant) and the most senior and prestigious grant is the so-called VICI grant for researchers 8-15 years after finalising their PhD.

“The complexity of interactive factors, individual (e.g. genetic) and social factors demands the generation of long term, broad designed population studies, which enable to study causalities and outcomes in complex patients” (see Self Evaluation A.3.2.4). The ERC supports this translational approach. As the School has large scale infrastructural facilities as well more specialized cohort data bases, there are great opportunities to strengthen Primary Care research in collaboration with the other clusters and even other FGLM Schools, such as CARIM and NUTRIM.

Bearing this in mind, the ERC recommends scouting three (external) established top talents in the following areas:

**1**

A Chair in Primary Care: somebody with a strong epidemiological (methodological) and biological (genotyping) profile, who has a strong international network and will be able to stimulate an effective use of the existing cohorts and contribute to the methodology needed.

**2**

A Chair in Health Promotion/ Compliance (an important theme at the crossroads of Public Health and Primary Care): most expertise is available in the United States.

**3**

A Chair in Innovation of Care: somebody in the area of (the organization of) care for the elderly (keywords: multimorbidity, frail elderly, home care technology and ‘integrated care chains’<sup>5</sup>). This theme is of utmost importance both for the cluster Innovation of Care as well as for the cluster Primary Care.

<sup>5</sup> The chain-oriented concept is a fundamental principle in the development of Maastricht UMC+. The entire chain of care is very broad and includes general practitioners, hospitals, nursing homes, public health services, home care services, etc.

**Centre of Excellence**

The faculty board has expressed its intention to develop a Centre of Excellence in the area of Primary Care, which should be recognized as such in the national and international arena. The Dean of the Faculty has indicated to have strong ambitions for this Centre of Excellence:

Centre of Excellence	Standards
Publications in top journals	2/year
Bibliometry CPP/FCSm	> 1,5
External review/ SEP protocol evaluation	> 4
Veni/Vidi	1/1/year
Vici/Spinoza	1
National TTI network	-
International Network Centre of Excellence	-
Ration earning power 1st/2nd/contract	1:1:2

The ERC supports the ambition to establish a Centre of Excellence in the area of Primary Care. The subject is of high relevance and CAPHRI has a lot to offer in this respect: the quality, productivity, vitality and feasibility of their research in this area is excellent.

The ERC agrees that it fits a Centre of Excellence to aim for the top, although some goals mentioned, such as acquiring a Spinoza can never be laid down as a hard parameter.

**Strategy**

It is important to involve the expertise of the whole School into this initiative. This means that the quality has to be strengthened right across the width of the School. This means that CAPHRI should invest in all its clusters (Primary Care, Innovation of Care and Public Health). The CAPHRI policy to scout talent at different levels (see talent scouting), invite visiting professors and invest in the ‘NWO Vernieuwingsimpuls’ will form an important part of this. Establishing strategic alliances at a national and international level is another necessary condition to develop a successful Centre of Excellence. This process should be enhanced by the appointment of a new Chair in the area of Primary Care, as well as Chairs in the areas of Health Promotion/Compliance and Innovation of Care.

“The ERC supports the ambition to establish a Centre of Excellence in the area of Primary Care. The subject is of high relevance and CAPHRI has a lot to offer in this respect: the quality, productivity, vitality and feasibility of their research in this area is excellent.”

**A summary of the answers following the specific questions of the Dean of the Faculty of Health, Medicine and Life.**

**1  
What is the scientific quality of the School for Public Health and Primary Care: CAPHRI, judged according to the KNAW-SEP standards?**

The School comes across as a strong institute with a very good performance. In terms of assessment ratings, the overall score is **very good to excellent**.

**School for Public Health and Primary Care: CAPHRI**

	Primary Care	Innovation of Care	Public Health
Quality	5	3,5	4
Productivity	5	4	4
Relevance	4	4	4
Vitality and feasibility	5	4	4
<b>General assessment</b>	<b>5</b>	<b>4</b>	<b>4</b>

**2  
What is the national and international position of the School?**

In general, the School should change its orientation from internal to external, and consequently from national to international. Clear international benchmarking is missing. The visibility of the School and its researchers needs to be enlarged. This requires a clear and professional Public Relations policy. Furthermore, the School should put effort into developing and optimising strategic alliances, both at a national and an international level. The committee recommends changing the name of the School into something simpler, recognizable and lasting, which does justice to the three underlying clusters. For PR-reasons it would be good to include 'Maastricht' in the name.

**3  
Were the three clusters (Primary Care, Innovation of Care and Public Health) chosen right, considering the developments in the field and the ambitions of the School?**

The programmes have been grouped together into three clusters, which are chosen well. As such the three clusters

have a clear image, which should be strengthened. The cluster leaders have an important role, as a scientific leader and a source of inspiration, with an international orientation and network. The ERC agrees with the explicit strategy of the School to avoid creating an additional management layer between the programmes and the directors.

**4  
Is the structure and organization of the School in 15 programmes considered to be adequate? Is it necessary to amalgamate certain programmes? Are there any programmes that should be discontinued?**

The programme-structure is supported by all CAPHRI staff and leads to more flexibility and decisiveness. The programme-structure as such should not be altered. The ERC recommends, in due time, to amalgamate 4 programmes (Programme 1.1. and 1.3; 3.4 and 3.5; 2.3 and 3.3; and 2.4 and 3.1). However, the ERC advises to approach this subject with great care. The ERC can not point out any programme that is not up to scratch and should be discontinued.

**5  
According to the judgment of the committee, which programmes should definitely be continued because of its quality and estimated future perspective?**

All existing programmes fit well into CAPHRI's mission, have a good academic reputation, are relevant and have good prospects.

**6  
Are there any areas in the School that need to be strengthened, especially at the level of postdoc-positions and possible Chairs?**

The ERC is of the opinion that talent-scouting should be geared towards the strengthening of the field of Primary Care, whilst at the same time it should strengthen the cooperation between the three clusters. Bearing this in mind, the ERC recommends to scout three (external) established top talents (with a clear profile) in the following areas:

- A Chair in Primary Care: somebody with a strong epidemiological (methodological) and biological (genotyping) profile, who has a strong international network and will be able to stimulate an effective use of the existing cohorts and contribute to the methodology needed. Possibilities for cooperation with CARIM and/or NUTRIM should be explored.

- A Chair in Health Promotion/ Compliance (an important theme at the crossroads of Public Health and Primary Care): most expertise is available in the United States.
- A Chair in Innovation of Care: somebody in the area of (the organization of) care for the elderly. This theme is of utmost importance both for the cluster Innovation of Care as well as for the cluster Primary Care.

**7**

***Is it possible to develop the School into an international Centre of Excellence in the area of Primary Care? What would be the most appropriate strategy to reach this goal?***

The ERC supports the ambition to establish a Centre of Excellence in the area of Primary Care. The subject is of high relevance and CAPHRI has a lot to offer in this respect: the quality, productivity, vitality and feasibility of their research in this area is excellent.

Thinking about an appropriate strategy to reach this goal, the ERC recommends to involve the expertise of the whole School into this initiative. This means that the quality has to be strengthened right across the width of the School. This means that CAPHRI should invest in all its clusters (Primary Care, Innovation of Care and Public Health). The CAPHRI policy to scout talent at different levels (see talent scouting), invite visiting professors and invest in the ‘NWO Vernieuwing-simpuls’ will form an important part of this. Establishing strategic alliances at a national and international level is another necessary condition to develop a successful Centre of Excellence. This process should be enhanced by the appointment of a new Chair in the area of Primary Care, as well as Chairs in the areas of Health Promotion/Compliance and Innovation of Care.

## Conclusion in assessment ratings

### At the level of the School:

Overall	<b>Very good to excellent</b>
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### At the Cluster level:

Primary Care:	<b>Excellent</b>
Innovation of Care:	<b>Very good</b>
Public Health:	<b>Very good</b>

# **Schematic Overview of MRC recommendations and actions taken by CAPHRI**

## Recommendation

## Action taken

### ERC 2007

#### 1 National and international position of the School

- The School should change its orientation from internal to external, and consequently from national to international.
- Clear international benchmarking is missing.
- The School should put effort into developing and optimising strategic alliances, both at a national and an international level.

#### Since the review in 2007 several actions have been taken to improve the national and international position of the School:

- CAPHRI's focus on Europe becomes apparent when looking at the number of EU-grants that were obtained in the last couple of years: 12 EU-grants were attracted in 2008 and 10 in 2009. CAPHRI coordinates three of these projects. (See annex 8).
- Overall, 50% of the CAPHRI PhD students come from abroad. Of the 2009 cohort, one-third of the internal PhD students comes from abroad, and so does the majority of the external PhD students. When combining the internal and external PhD-students, approximately 50% of the students come from abroad.
- In September 2008 the new department 'International Health' and the attached programme 'Comparative Health' were launched. They have a European outlook which originates from the content of their key-activities. Its activities are not limited to the EU Member States, but cover the whole WHO-EURO geographic area. The programme aims to influence national, transnational, and European policy and institutes. This can be seen through the advisory roles played by many of the Department's staff throughout the year in several European organisations.
- In 2009, the completely new European Public Health Master's programme was developed. A total of thirteen students started the programme in 2009. For the academic year 2010/2011, a slight increase in student intake is expected.
- To optimise strategic alliances, very recently, 4 visiting professors were attracted, from different parts of the world:
  - Aziz Sheikh, University of Edinburgh, UK
  - Robert West, University College London, UK
  - Glyn Elwyn, Cardiff University, UK
  - John Eisman, The Garvan Medical Research Institute, Sydney, Australia

CAPHRI wants to invite 3 new visiting professors every year, one for each cluster (primary care, innovation of care, and public health). Furthermore, CAPHRI has attracted staff from abroad at different levels, 3 professors: Prof. Helmut Brand, Prof. Peter Anderson, and Prof. Angela Brand, several researchers and a large number of PhD students.
- Internationalisation is an important part of CAPHRI's policy towards 'Young talent' (research Master's students, PhD-candidates and Post-docs). To enhance their CV, all Master's students (including the Research Master) are entitled to a grant of €500 to travel abroad in the framework of their studies. For all PhD candidates an amount of €4,100 is available, and Post-docs can also apply for a CAPHRI travel grant.

## Recommendation

## Action taken

### ERC 2007

#### 2 PR and communication

- The visibility of the School and its researchers needs to be enlarged. This requires a clear and professional Public Relations policy.
- The committee recommends changing the name of the School into something simpler, recognizable and lasting, which does justice to the three underlying clusters. For PR-reasons it would be good to include 'Maastricht' in the name.

- Daniëlle Moens was appointed in 2008 especially for PR-reasons. Twan Meusen was appointed to develop the new CAPHRI website.
- A special PR working group (consisting of members of the Schoolcouncil) looked at the name of the School and suggested a new name, which was unanimously accepted by the Schoolcouncil in its meeting of 8 September 2009. The proposed name was Maastricht School of Health. This name was proposed to the Maastricht UMC executive Board in a letter, dated 05-10-2009. However, the board did not agree with the name, as there are plans to develop a 'Health Campus' at the MUMC+ premises, and the name 'Health' cannot be exclusively for CAPHRI. Therefore, CAPHRI is still using its existing name.
- In 2009, the annual CAPHRI-day was organised around the theme of 'Public Relations'. Experts in this area were invited and there were ample discussions in the clusters and in a plenary setting around the question of how we can make CAPHRI better known to the world. Several ideas came out of this meeting, and a special task force on PR was installed. This led to the overall CAPHRI communication plan (Annex 17).
- An experienced journalist, Karin Burhenne, was hired, on a free lance basis, as a professional writer for CAPHRI. Her interviews allow CAPHRI to put talented researchers in the spotlight.
- A professional communication and design agency 'Zuiderlicht' was contracted to design a new corporate identity style for CAPHRI, using the existing logo. The design had to fit the Maastricht UMC+ style. Zuiderlicht has designed a new website, the renewed annual reports 2008 and 2009, posters for the CAPHRI annual days and a complete set of CAPHRI 'sympathy-cards' (congratulations, good luck, get well, etc.), and of course, underlying self-evaluation report.
- The 2008 and 2009 Annual Reports were not only redesigned to improve their appearance, but the contents were also completely renewed to make the reports more interesting and reader-friendly. Changes include the adding of personal interviews of researchers, performance highlights as well as photos and personal signatures of CAPHRI staff.

## Recommendation

## Action taken

### ERC 2007

#### 3 Societal Impact

- There seems to be a lot of potential in terms of societal impact and it is clear that the process has been set in motion, but it has to be made more visible to the outside world. Therefore the ERC recommends professionalizing the concept of societal impact in the culture of the School.

#### 4 Maastricht University Medical Centre+

The position of CAPHRI as linking profile has potential but this requires strong leadership. The ERC would like to stress that the concept of a linking profile of public health and primary care can only be successful if the academic hospital management is committed to developing an extensive knowledge centre focusing on the entire spectrum of health and disease, from health promotion aimed at the general public to specialist patient care, both within and outside the hospital walls.

- A taskforce, consisting of members of the schoolcouncil, chaired by IJmert Kant, has steered the process from 2007 onwards.
- The Crebolder Award for societal impact was installed.
- As of 2007 all CAPHRI programmes were requested to register all displays of societal impact. At first the CAPHRI administration asked to register everything on a special form. Later on the registration was professionalized and an on-line registration programme (METIS) was used, which allows one (or more) authorized person per programme to register all displays of societal impact in the data-base. CAPHRI's societal impact figures are reported in Annex 16.

- Prof. Guy Widdershoven (former scientific director of CAPHRI), has participated in a special Maastricht UMC+ task force, which discussed the organisational structure of the Maastricht UMC+ and the position of the Schools.
- To ensure that there can be an extensive knowledge centre focusing on the entire spectrum of health and disease, from health promotion aimed at the general public to specialist patient care, both within and outside the hospital walls, CAPHRI and the RVE Integrated Care have joined forces in a special multidisciplinary 'chain for care, education, training and research' (ZKO), which will focus on Public Health and Primary Care. Structural co-operation between health care providers and key-organisations in a region context has always been an important asset of both CAPHRI and the RVE Integrated Care. The 'Public Health and Primary Care' ZKO (which is strictly speaking still to be established), will combine their efforts and will function as an organisation that links the Maastricht UMC+ and a variety of health care providers and other important stakeholders outside the UMC-walls, for example, general practitioners, municipal health department and public health care nurses.
- A task force was installed to write a strategic document for the ZKO 'Public Health and Primary Care'. The task force consists of 8 CAPHRI programme leaders, from different disciplines: Klasien Horstman, Rob de Bie, Jean Muris, Cathrien Bruggeman, Bert Vrijhoef, Hans Maarse, Ilse Mesters and Trudy van der Weijden. The document will present the conceptual framework of the Public Health and Primary Care ZKO. It will look at the positioning of this ZKO in the organisational structure of the Maastricht UMC+, and will describe some long term goals.

**Recommendation**

**Action taken**

**ERC 2007**

**5  
Awards and prestigious  
research grants**

The ERC noticed that the School has received relatively few awards and prestigious individual research grants over the past three years. This could be related to the low visibility of the School. Enhancing the Public Relations policy of the School could have a positive effect on the profile. Furthermore, the research staff should be given the opportunity to excel.

**6  
Clusters**

The CAPHRI clusters have a clear image, which should be strengthened. The ERC agrees with the explicit strategy of the School to avoid creating an additional management layer between the programmes and the directors. To stimulate cohesion in the clusters it is recommended to organize cluster-meetings on a regular basis, in which cluster-specific information is exchanged. For these meetings international guests and visiting professors could be invited. This could work both ways: internally the feeling of belonging to a cluster could be strengthened, whereas at the same time it will enhance the visibility of the cluster.

- The Public Relations policy was enhanced in many ways (see above).
- CAPHRI has put serious efforts into encouraging its researchers to write high quality applications for the NWO-Vernieuwingsimpuls, the Innovational Research Incentives Scheme. The focus was especially on the VENI-grants, a prestigious individual grant in the NWO Vernieuwingsimpuls (VENI, VIDI, VICI) scheme. When the Centre of Excellence means were awarded, it was decided to use a large part of this money for the so-called 'breeding ground policy' (see recommendation 9) and focus especially on talented postdocs.
- To guarantee the quality of the applications, all proposals are reviewed and have to be approved by the CAPHRI scientific committee.
- Furthermore, the School provides incentives (approx. €7,000) for any researcher who writes a high quality application for a prestigious (individual) grant, such as the NWO-Vernieuwingsimpuls (VENI, VIDI and VICI), ERC, NWO-TOP.
- There has been a clear increase in number of awards in the last couple of years. The awards are mentioned in A.7 and Annex 14.

Every year, at the CAPHRI annual day, special cluster-meetings are organized where researchers can present their work and specific topics, such as PR in 2009 and the development of the ZKO Public Health and Primary Care in 2010, can be discussed. The annual days are getting more and more popular, and the cluster-meetings are well appreciated. Also, the visiting professors are invited at the cluster level and lectures are organised to enhance the coherence within the clusters.

However, having said that, this subject still needs some more attention. In a recent Schoolcouncil meeting, the need for more cohesion in the clusters was discussed and it was agreed to work on this together.

**Recommendation**

**Action taken**

**ERC 2007**

**7  
Programme structure**

The ERC recommends, in due time and with great caution, to combine the following programmes:

**1**  
Cluster Primary Care: programmes 1.1 and 1.3 'Epidemiology of musculoskeletal disorders' and 'Effectiveness of Diagnosis and Intervention in patients with Rheumatic diseases'

**2**  
Cluster Public Health: programmes 3.4 and 3.5 'Health communication' and 'Theory and Practice in Health Promotion'

There are two further combinations possible, one in the area of health ethics and one in the area of health technology assessment, but they exceed the borders of the clusters, which could make the process of combining more difficult:

**3**  
Clusters Innovation of Care and Public Health: programmes 2.3 and 3.3 'Autonomy and participation in chronic care' and 'normative aspects of Biomedical and Public Health Technologies'

**4**  
Clusters Innovation of Care and Public Health: programmes 2.4 and 3.1 'Health technology assessment' and 'design and analysis of studies in health sciences'

The ERC recommendation to amalgamate the Public Health programmes 'Health Communication' and 'Theory and Practice in Health Promotion' was adopted and the merger will take place in the near future. However, the recommendation to combine two Primary Care programmes 'Epidemiology of musculoskeletal disorders' (1.1) and 'Effectiveness of Diagnosis and Intervention in patients with Rheumatic diseases' (1.3) has not been taken up, as the focus of the programmes is quite different. The focus in programme 1.1 (musculoskeletal disorders) is mainly on exercise to improve health in chronic diseases, while the focus in programme 1.3 is on rheumatic diseases. There certainly are links between both programmes, but the cooperation is not as intense as it may look at first glance. Therefore, it was decided to keep the programmes separate, but to stimulate cooperation between the programmes. Furthermore, the ERC made two cautious suggestions to combine two programmes in the area of health ethics (former programmes 2.3 and 3.3) and two programmes in the area of health technology assessment/design and analysis of studies in health sciences (former programmes 2.4 – now 2.3 – and 3.1). In the area of health ethics, programme 2.3 (a small programme with 1.8 fte tenured staff) was discontinued because of the departure of the programme leader and two of the tenured scientific staff. The remaining staff was added to programme 3.3, in line with the suggestion of the ERC. As far as Health Technology Assessment was concerned, it was decided not to merge as suggested as there is a substantial difference in focus between both groups.

## Recommendation

## Action taken

### ERC 2007

#### 8 Master programmes

The ERC recommends to link the content of the master programmes as much as possible to the content of the three clusters. This would for example mean that visiting professors with expertise in one of CAPHRI's research programmes/clusters could also contribute to one of the master programmes. In that way the educational programme and the research programme of CAPHRI will reinforce each other and both will benefit from the fact that they are integrated into one School.

#### 9 Breeding ground policy

- CAPHRI used to have a so-called *kweekvijverbeleid* (breeding ground policy) which had to be stopped because of lack of resources. The ERC would advise to revive this policy again.
- Furthermore, research staff should be allowed sufficient time to work on their scientific output and on the acquisition of funds.

CAPHRI researchers perform most educational roles in the Master's programmes, the Research Master and PhD courses. Master's and PhD students have day-to-day contact with staff members who act as role models in shaping a research career. Not only the CAPHRI staff members, but also the visiting professors will be involved in this. Furthermore, second year HSRM students become active members of the departments where they perform their internship. Master's and PhD students actively participate in colloquia and research meetings of the departments. The Master thesis and HSRM grant proposal are written under close supervision of two CAPHRI researchers.

CAPHRI's 'breeding ground policy' had a revival indeed. This policy is aimed at recognising, stimulating and supporting talents among its (Research) Master's students, PhD candidates and research staff and providing them with the opportunities to excel. The breeding ground policy is closely linked to CAPHRI's quality systems: 'PhD-TRACK' for PhD-students, and the regular planning and control cycle, where the output of individual researchers is assessed. Furthermore, the School's Research Master Programme can also be seen as an excellent source of talented junior researchers.

CAPHRI is willing to invest in its talented staff and offers incentives for every category. For Master's students who are willing to travel abroad for academic purposes (and thus enrich their CV) a CAPHRI scholarship of maximum €500 is made available. For PhD candidates CAPHRI offers a personal budget of €4,100 (in addition to project funds) for courses, conferences, workshops and travel costs, which is released after approval of the Training and Supervision Plan by the PhD coordinator. A CAPHRI policy especially aimed at talented postdocs provides at least 5 postdoc positions per year for excellent PhD graduates with the single purpose to prepare excellent individual grant proposals, such as a 'VENI'-proposal (NWO Vernieuwingsimpuls). The postdoc will have sufficient time and support to write a well-balanced research proposal and at the same time acquire adequate experience abroad to enrich his/her CV. Furthermore, the School provides incentives (approx. €7,000) for any researcher who writes a high quality application for a prestigious individual grant, such as the NWO-*Vernieuwingsimpuls*, at all levels, VENI, VIDI and VICI.

**Recommendation**

**Action taken**

**ERC 2007**

**10  
Scouting (external) established  
top talents**

The ERC recommends scouting three (external) established top talents in the following areas:

**1**  
A Chair in Primary Care: somebody with a strong epidemiological (methodological) and biological (genotyping) profile, who has a strong international network and will be able to stimulate an effective use of the existing cohorts and contribute to the methodology needed.

**2**  
A Chair in Health Promotion/ Compliance (an important theme at the crossroads of Public Health and Primary Care): most expertise is available in the United States.

**3**  
A Chair in Innovation of Care: somebody in the area of (the organization of) care for the elderly (keywords: multimorbidity, frail elderly, home care technology and 'integrated care chains' ). This theme is of utmost importance both for the cluster Innovation of Care as well as for the cluster Primary Care.

In 2008 a FHML-wide campaign was started, where CAPHRI as Centre of Excellence, amongst others, was brought to the attention of the public and at the same time specific vacancies were announced. The campaign was called 'Spotlight on the Netherlands' and was carried out at the national and the international level. In September 2008 job-profiles for the three Chairs mentioned here were published in the prestigious and well-read 'Naturejobs'. This, and intense lobbying by the CAPHRI scientific directors has lead to approximately 5-10 applications per vacancy. However, the vast majority was considered to be of insufficient quality.

However, CAPHRI was very pleased with one candidate, who came forward for the position as the leader of the Cluster 'Innovation of Care' after intense lobbying. The procedure of this candidate is finished and the Chair will be appointed as of January 2011.

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**Recommendation**

**Action taken**

**ERC 2007**

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**11  
Centre of Excellence**

It is important to involve the expertise of the whole School into the Centre of Excellence initiative. This means that the quality has to be strengthened right across the width of the School. This means that CAPHRI should invest in all its clusters (Primary Care, Innovation of Care and Public Health). The CAPHRI policy to scout talent at different levels (see talent scouting), invite visiting professors and invest in the 'NWO Vernieuwingsimpuls' will form an important part of this. Establishing strategic alliances at a national and international level is another necessary condition to develop a successful Centre of Excellence. This process should be enhanced by the appointment of a new Chair in the area of Primary Care, as well as Chairs in the areas of Health Promotion/Compliance and Innovation of Care.

A couple of months after the publication of the ERC-report in December 2007, an Investment plan for the CAPHRI Centre of Excellence was written (March 2008). This Investment plan has looked in detail at the recommendations of the mid-term review and, thus, CAPHRI has followed every single recommendation given by the mid-term review committee.

CAPHRI has indeed revived its talent scouting at all levels, has appointed visiting professors and has invested in the NWO-*Vernieuwingsimpuls*.

“It is important to involve the expertise of the whole School into the Centre of Excellence initiative. This means that the quality has to be strengthened right across the width of the School.

This means that CAPHRI should invest in all its clusters (Primary Care, Innovation of Care and Public Health). The CAPHRI policy to scout talent at different levels (see talent scouting), invite visiting professors and invest in the ‘*NWO Vernieuwingsimpuls*’ will form an important part of this. Establishing strategic alliances at a national and international level is another necessary condition to develop a successful Centre of Excellence.”

# Appendices / Annex 4.A

## CAPHRI programme structure 2010

### Cluster 1 : Primary Care

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Programme 7
R. de Bie L. van Rhijn	G.J. Dinant M. vd Akker	S. vd Linden R. Landewé	M. Prins	G.J. Wesseling J. Muris	C. Bruggeman	R. Smeets
Epidemiology of musculoskeletal disorders	Diagnostic and treatment of frequently occurring diseases in primary care	Effectiveness of Diagnosis and Intervention in patients with Rheumatic Diseases	Clinical Epidemiology	Asthma and COPD	Infections and antibiotic resistance in primary care	Rehabilitation Medicine

### Cluster 2 : Innovation of Care

Programme 1	Programme 2	Programme 3	Programme 4			
J. Hamers R Kempen	B. Vrijhoef N. Schaper	S. Evers	T. vd Weijden			
Innovations in Health Care for the elderly	Redesigning Health Care	Health Technology Assessment	Implementation of Evidence			

### Cluster 3 : Public Health

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	
M. Berger G. van Breukelen	I.J. Kant	K. Horstman	N. de Vries H. de Vries	H. Brand	A. Brand	
Design and analysis of studies in health sciences	Occupational Health Epidemiology	Health Ethics and Society	Health Communication & Theory and Practice in Health Promotion	Comparative Health	Public Health Genomics	

# Appendices / Annex 4.B

## CAPHRI programme structure 2007

### Cluster 1 : Primary Care

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5		
R. de Bie	G.J. Dinant M. vd Akker	S. vd Linden R. Landewé	M. Prins	G.J. Wesseling J. Muris		
Epidemiology of musculoskeletal disorders	Diagnostic and treatment of frequently occurring diseases in primary care	Effectiveness of Diagnosis and Intervention in patients with Rheumatic Diseases	Clinical Epidemiology	Asthma and COPD		

### Cluster 2 : Innovation of Care

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5		
J. Hamers R. Kempen	B. Vrijhoef N. Schaper	T. Abma	H. Severens	T. vd Weijden		
Innovations in Health Care for the elderly	Redesigning Health Care	Autonomy and participation in chronic care	Health Technology Assessment	Implementation of Evidence		

### Cluster 3 : Public Health

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5		
M. Berger	I.J. Kant	R. Vos	N. de Vries	H. de Vries I. Mesters		
Design and analysis of studies in health sciences	Occupational Health Epidemiology	Normative Aspects of Biomedical and Public Health Technologies	Health Communication	Theory and Practice in Health Promotion		

# **CAPHRI Programme Management Policy**

**Basic principles for regulations relating to the maintenance and termination of programmes.**

# 1

## Introduction

CAPHRI has been working with a programme structure since 2006. Programmes are of a smaller scale than divisions, and are natural research units, in which researchers in a specific field work together. Programmes are characterised by continuity of projects, publications and PhDs. These programmes have one or more drivers, which are vital to their research.

The management at CAPHRI has the task of monitoring and evaluating whether programmes are still in keeping with CAPHRI's vision and whether they are still productive. Furthermore, CAPHRI strives for a further focalisation of its research to create greater scope for the strengthening of a certain number of principle lines of research. This means that less successful programmes should be discontinued or embedded into more successful research programmes. In this way, there will eventually be fewer, more substantial research programmes.

In the following document, the basic principles will firstly be outlined, and then a number of criteria will be elaborated, which will act as a guide to the decision-making process of the management at CAPHRI in relation to the maintenance and termination of programmes.

# 2

## Focusing upon output and quality

Right from the very beginning, the policy of Maastricht UMC+ has focused on high-quality research. Maastricht UMC+ strives to be among the top three in the Netherlands and top ten in Europe by means of directed investments in a number of research fields. The current policy regarding focus, size, and quality, is being continued. The conclusion of less successful parts will create scope in which to strengthen the principle lines of research.

Regularly, but at least once a year, the management team at Maastricht UMC+ will hold planning and control meetings with the scientific directors of the research fields in order to evaluate the scientific output. The bibliometric data and the information from the planning and control cycle (such as scientific output, earning power, and societal impact) form the core data in this regard. By following and analysing the

output data, the research fields can be adequately evaluated and, where necessary, adapted or given additional support.

A number of performance indicators have been defined within the FHML for the purpose of upholding the quality of research:

- The participation of research schools recognised by the Royal Netherlands Academy of Arts and Sciences (KNAW)
- The parameters from the yearly planning and control cycle
- The findings from the self-evaluations and reviews of the research institutes in accordance with the Standard Evaluation Protocol for Public Research Organisations (SEP)
- A bibliometric analysis with international benchmark.

However, given that a substantial part of CAPHRI's field of work relates to behavioural and social sciences, it is important to note that the evaluation of research activities in these scientific fields cannot be based solely on simple and uniform bibliometric indicators. This was found in a report by the KNAW in 2005<sup>1</sup>. Even an indicator such as the Hirsch index, which is being used increasingly more often, meets with well-founded opposition from within the realm of the social sciences<sup>2</sup>. Furthermore, the societal impact of an institute such as CAPHRI will become increasingly more important. At the moment, an automated system is being put in place within CAPHRI in order to be able to monitor societal impact.

Planning and control dialogues are carried out on the CAPHRI programmes twice a year: one in spring and one in autumn. The planning and control dialogue held in spring is based on the figures from the previous year. The dialogues held in autumn is of a more strategic nature.

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<sup>1</sup> KNAW report *Judging research on its merits – an advisory report by the Council for the Humanities and the Social Sciences Council*, Amsterdam, May 2005.

<sup>2</sup> Various research projects have now shown that the Hirsch index is less suitable for behavioural and social sciences and, furthermore, is not advantageous for younger researchers (Bornmann & Daniel, 2007; Iglesias & Pecharromán, 2006; Bowman & Marx, 2006).

## 3

**Quantitative and qualitative criteria**

A detailed explanation of a number of quantitative and qualitative criteria for research evaluations will be given below.

**Quantitative criteria****Publications**

- Number of peer-reviewed publications: Average of six publications per government funded fte for academic research per year (reference three years).
- Impact factor of publications: 30% of the publications with an impact factor in the top quarter of the discipline concerned.

**Number of PhD degrees**

- 1.5 PhDs awarded per government-funded academic staff fte<sup>3</sup> per three years (0.5/academic staff per year).
- Average time taken for thesis completion (aiming for four years; CAPHRI's average currently lies at 4.97 years and displays a falling trend).

**Earning power**

- Earning power per government-funded academic staff fte. The norm is 1:1, that is to say equivalent to average personnel expenses per academic staff fte. For 2010, this is €88,988.
- Number and scope of requests and awards based on indirect government funding:
  - Number of requests NWO/ZonMw (number and scope) and applications granted
  - Number of scholarship requests to the NWO Innovational Research Incentives Scheme ('vernieuwingsimpuls') and applications granted
  - NWO A status projects (number and range).
- Number and range of requests and awards based on contract research funding:
  - EU projects (KP7, SANCO)
  - CBF<sup>4</sup> project requests
  - Possible project requests/initiatives TTI/MTI, smart-mix, etc.
- Ratio between submitted and accepted proposals (success ratio).
- Percentage of loss-making/profit-making projects.

**Societal impact**

The societal impact of health and health care research is visible in the effects on public health and health care, also known as 'social impact'. Identifying unambiguous criteria for societal impact does not seem to be a simple matter, however. Little is known about the validity of the indicators. CAPHRI has chosen to apply a number of indicators, which are based on the Dutch reports about Societal Impact<sup>5/6</sup>. All programme leaders are requested via an automated system for data. The indicators are evaluated on a yearly basis.

**Societal impact indicators**

- Contribution to guidelines
- Participation in national and international committees
- Editorship (and membership of editorial boards)
- Contribution to the media: subdivided into radio, TV and internet
- Membership of relevant advisory bodies
- Vocational publications
- Presentations
- Measuring equipment/methods/technology (patents).

<sup>3</sup> Fte = full time equivalent.

<sup>4</sup> Central Bureau on Fundraising (CBF) is an independent foundation which has been monitoring fundraising by charities since 1925. Altogether 1278 charities are registered, among which the Asthma Fund, AIDS Fund, Dutch Cancer Society, Dutch Heart Foundation, etc.

<sup>5</sup> EMGO Institute, Annual Report 2007.

<sup>6</sup> Public health on the move, J Mackenbach, Public Health Institute, Erasmus University Rotterdam, 2007.

## Qualitative criteria

### Position of the subject matter within the mission of the institute

In this category, we can look at the relevance of the research within the vision of CAPHRI as a whole, but also within the three Cluster's research fields. In addition, the relevance of the research programme can be benchmarked against national and international academic and societal developments.

### Academic reputation

This concerns the image of the research group and the recognition it has achieved in the national and international field. Naturally, the assessment by the external review committee in the SEP-evaluation plays an important role here.

### Bibliometric analysis (CWTS)

There is no 1:1 relationship between CAPHRI's research programmes and the level at which the bibliometric analysis is carried out. This means that it cannot be used as a quantitative instrument. However, the bibliometric analysis of the Cluster and the position of the research group within this Cluster can be used.

### Future expectations

The question is whether the research programme has innovative potential. Are there opportunities for the future, is there still 'potential' in the research programme or is the programme clearly 'past its high point'?

### Positioning within the future of Maastricht UMC+

How will the research programme be situated within the ZKO Public Health and Primary Care? Will the research group play a crucial role in this regard?

### Knowledge valorisation

Relationships with the business world and social organisations for the purpose of knowledge valorisation can include, for instance, spin-offs and strategic collaborations with specific partners.

### Contribution to teaching

Contribution to teaching in the context of the CAPHRI Master's programmes, the Health Science Research Master and the PhD training programme (CAPHRI/CaRe).

## 4

## Procedure

In the planning and control meetings in the spring, the output data will be discussed with the programme leaders. The quantitative output data will be delivered beforehand by the CAPHRI management. Qualitative data will be provided by the programme leaders as well as the CAPHRI management. In the spring of 2010, all programme leaders will also be asked to carry out a SWOT analysis, which will include the use of national and international benchmarking, in accordance with the latest SEP protocol<sup>7</sup>.

This data will be analysed to determine if, and if so, how the programme will be continued. The management and the programme leaders will determine whether the programme can be considered viable in its current form, or whether reorientation, clustering and termination is appropriate.

In the planning and control meetings in the spring, the agreements will be monitored and adjusted if necessary.

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<sup>7</sup> VSNU, KNAW and NWO. Standard Evaluation Protocol 2009-2015. Protocol or research assessment in the Netherlands, 2009.

# **CAPHRI's main national and international peers**

## CAPHRI Overall

### National level

- Institute for Health and Care Research at VU Medical Centre EMGO+, Amsterdam \*\*\*
- IQ-Health care, Nijmegen \*\*
- NIVEL, Utrecht \*\*
- Radboud UMC, dept of geriatrics, Nijmegen
- Tranzo, Tilburg University
- VU MC, Amsterdam
- AMC, Amsterdam
- UMC Utrecht, Dept. of Nursing Science
- Julius Center, Utrecht
- Center of infectious diseases control, Eindhoven
- Center of infectious diseases control, Bilthoven
- Department of rehabilitation medicine, Erasmus MC, Rotterdam
- Institute of Health Policy and Management, Erasmus MC, Rotterdam
- Institute of Medical Technology Assessment (iMTA), Rotterdam
- Department of rehabilitation medicine, *Kenniscentrum de Hoogstraat*, Utrecht
- Roessingh R&D, Enschede
- University of Twente, Enschede
- Dept. Social Psychology, Groningen University

### International level

- Charite University Hospital Berlin, Germany
- ICF WHO Geneva, Switzerland
- Klinikum Aachen, Germany
- University Liege, Belgium
- Biostatistics research Group, Hasselt university, Belgium
- Cancer prevention research center University of Rhode Island, US
- Max Planck Institute in Molecular Genetics, Berlin, Germany
- The Personal Genome Group, Harvard Medical School, USA
- EC-JRC Institute for Prospective Technology Studies, Sevilla, Spain
- London School of Hygiene and Tropical Medicine, London, UK
- London School of Economics and Political Sciences, London, UK
- Dept. of General Practice, University of Oxford, UK
- Dept. of General Practice, University of Leuven, Belgium
- European Observatory on Health Systems and Policies, Brussels, Belgium
- Lund University, dept of Health Sciences, Sweden
- University of York, Centre for Health Economics (CHE), UK
- Primary Care and Public Health research group, Cardiff University, UK

\* = Number of times the organisation was mentioned

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## Primary Care Cluster

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### National level

- NIVEL, Utrecht \*\*
- Center of infectious diseases control in Bilthoven
- Institute for Health and Care Research at VU Medical Centre EMGO+, Amsterdam
- IQ-Health care, Nijmegen
- Free University Medical Center, Amsterdam
- AMC, Amsterdam
- Julius Center, Utrecht
- LUMC, Leiden
  
- Department of Rehabilitation Medicine, Erasmus University Rotterdam
- Department of Rehabilitation Medicine, *Kenniscentrum de Hoogstraat*, Utrecht
- Roessingh Research and Development, Enschede

### International level

- (University) lab./ health care institutions in the Euregion Maas Rijn: Klinikum Aachen, University Liege, Belgium
- Dept. of General Practice, University of Oxford, UK
- Dept. of General Practice, University of Leuven, Belgium
- Charite University Hospital Berlin, Germany
- ICF WHO, Geneva, Switzerland
- Dept. of General Practice, University of Edinburgh, UK

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## Innovation of Care Cluster

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### National level

- IQ-Health care and Radboud UMC, dept. of geriatrics, Nijmegen
- Tranzo, Tilburg University
- UMC Utrecht, dept. of nursing science
- Institute of Health Policy and Management, Erasmus MC, and Institute of Medical Technology Assessment (iMTA), Rotterdam
- University of Twente, Enschede

### International level

- Lund University, dept of Health Sciences, Sweden
- University of York, Centre for Health Economics (CHE), UK

## Public Health Cluster

### National level

- Institute for Health and Care Research at VU Medical Centre EMGO+, Amsterdam \*\*
- All methodology and (Bio)statistics research groups at Dutch universities
- Department of Social Psychology, Groningen University
- Dept. of Metamedics VUMC Amsterdam
- Expertisecentre *Ethiek in de Zorg* (Ethics in Care), UMCG Groningen

### International level

- Klinikum Aachen, Germany
- University Liege, Belgium
- Dept. of General Practice, University of Oxford, UK
- Dept. of General Practice, University of Leuven, Belgium
- Charite University Hospital Berlin, Germany
- ICF WHO, Geneva, Switzerland
- Dept. of General Practice, University of Edinburgh, UK

\* = Number of times the organisation was mentioned

# **Overview of international partners of CAPHRI**

Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Austria</b>	Gesundheitsmanagement OG; Renate Burger, Martin Wieland	x	-	-	-
	University of Vienna, Faculty of Life Sciences; A.G. Haslberger	x	-	x	-
<b>Belgium</b>	University of Leuven, Department of Public Health, Belgium	x	-	-	-
	University of Leuven, Faculty of Psychology and Educational Sciences, Department of Psychology; Prof.dr. J.W.S. Vlaeyen	x	-	-	-
	University of Leuven, Department of Primary Care	x	x	-	Research training; diagnostic research
	University of Leuven; Prof. Jean-Jacques Cassiman	x	-	-	-
	University of Leuven, Department of Occupational and Insurance Medicine, Leuven; Prof. P. Donceel	x	-	-	-
	University of Gent	x	x	-	Research training; research in developing countries
	University of Gent; Prof. G. Crombez	x	-	-	-
	University of Gent; K. Delbaere	x	-	-	-
	University of Gent; Prof. Caroline Braet	x	-	-	-
University of Antwerp	x	x	-	Research training; management of unexplained complaints	

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	European Hospitals and Healthcare Federation (HOPE); Pascal Garel, Gloria Lombardi	X	-	X	-
<b>Bulgaria</b>	Professor Kancho Tchamov Medical University Sofia, Faculty of Public Health	X	-	-	-
	Medical University of Varna, Fac. of Public Health; Prof. Popova	X	-	-	-
<b>Cyprus</b>	University of Nicosia, Cyprus; Maria Karekla	X	-	-	-
<b>Denmark</b>	The National Institute of Occupational Health (AMI), Copenhagen; Tage S. Kristense	X	-	-	-
<b>Estonia</b>	University of Tartu, Prof. K. Saks	X	-	-	-
<b>Finland</b>	KTL Finnish School of Public Health, Finland; Prof. Erkki Vartiainen	X	-	-	-
	University of Helsinki, Finland; Ari Haukula	X	X	X	-
	Turku University; Prof. H. Leino-Kilpi	X	-	-	-
	Stakel (National Institute for Alcohol and Drug Prevention), Helsinki	X	-	-	-
<b>France</b>	Institut National de la Santé et de la Recherche Médicale (Inserm), Paris & Toulouse; Anne Cambon (Toulouse)	X	-	-	-
	University Hospital Toulouse, Prof. B. Vellas, M. Soto	X	-	-	-

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	University of Brest, Department of Primary Care	x	-	-	Management of unexplained complaints
<b>Germany</b>	University of Witten-Herdecke; Prof. G. Meyer	x	x	x	-
	University of Hamburg; Prof. Ula Walter	x	-	-	-
	University of Munich; Anneke Buehler	x	-	x	-
	University of Munich	-	x	-	Research training
	University of Berlin; Prof. Ralph Schwarzer	x	-	-	-
	Max Planck Institute Berlin; Prof. Hans Lehrach	x	-	-	-
	Helmholtz-Zentrum for Infectious Diseases, Braunschweig; Prof. Rudi Balling	x	-	-	-
	Heinrich-Heine-Universität Düsseldorf, Institut für Medizinische Soziologie, Düsseldorf; Prof. J. Siegrist and co-workers	x	-	-	-
	University of Bremen Law School, Institute of Health and Medical Law, Bremen	x	-	-	-
	Johann Wolfgang Goethe University, Institute for General Practice; Antje Erler, Christiane Muth	x	-	-	-
	University of Heidelberg	-	x	-	Research training

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	University of Marburg	-	x	-	Research training
	University of Hannover	x	-	-	Management of unexplained complaints
	University of Rostock	-	x	-	Research training
	Gesundheitsamt Kreis Heinsberg; Karl-Heinz Feldhoff	x	-	-	-
	Deutsches Institut für Medizinische Dokumentation und Information; Hans-Peter Dauben	x	-	-	-
	Euregio Rhein-Waal (ERW); Thea Remers	x	-	-	-
	Association of European Border Regions (AEBR); Cordula Pandary	x	-	-	-
	Association of European Border Regions (AEBR); Martin Guillermo Ramirez	x	-	-	-
	Landesinstitut für Gesundheit und Arbeit NRW - Zentrum für Öffentliche Gesundheit; Gudula Ward	x	-	-	-
<b>Ireland</b>	Dublin City University, Dublin; Prof. Staines	x	-	-	-
	Cooperation and Working Together (CAWT) Cross Border Health and Social Care; Sadie Bergin	x	-	-	-

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Luxemburg</b>	European Commission, Executive Agency for Health and Consumers EAHC; Guy D'Argent	X	-	-	-
	University of Luxembourg; Rudi Balling	X	-	-	-
<b>Italy</b>	Dept of Occupational and Environmental Health, University of Milan; Prof. C. Colosio and Prof. P. Bertazzi	X	-	-	-
	Center for Alcohol Prevention, Florence	X	-	-	-
	Vaneto region; Luigi Bertinato, Daniela Negri	X	-	-	-
<b>Norway</b>	University of Bergen, Norway; Prof. Leif Aaro	X	-	X	-
	University of Oslo, Norway; Prof. Knutt-Inge Klepp	X	-	X	-
	University of Tromso	X	-	-	Innovation of primary care research
<b>Portugal</b>	University of Beira Interior; Paulo Vitoria	X	-	-	-
<b>Rumania</b>	University of Clujz, Romania; Monika Poppa, Lucia Lotrean	X	-	-	-
	College of Family Medicine	X	-	-	Quality of primary care and implementation research
	Center for Health Policies and Services; Dana Farcasanu	X	-	-	-

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	Center for Health Policies and Services; Ioana Daramus	x	-	-	-
<b>Serbia</b>	University of Belgrade, National Institute of Public Health, Belgrade	x	-	-	-
<b>Spain</b>	University of Oviedo; Prof. Maria Luisa López	x	-	-	-
	University of Barcelona; Manel Nebot	x	-	-	-
	University of Catalunya; A. Zabalegui	x	x	x	-
	The Institute for Prospective Technology Studies JRC-IPTS, Sevilla	x	-	-	-
<b>Sweden</b>	Lund University; Prof. I. Rahm-Hallberg	x	x	x	-
	University of Stockholm	x	-	-	CAPHRI dept. Primary Care is host for sabbaticals
	Karolinska Institute Stockholm; Sickness absence research group; Prof. K. Alexanderson and Dept. of Clinical Neuroscience; Åsa Samuelsson	x	-	-	-
	Umeå University, Department of Public Health and Community Medicine, Gothenburg, Sweden; Prof. Anne Hammarström	x	-	-	-
<b>Switzerland</b>	University of Basel, Prof. Sabina de Geest	x	-	-	-
	SIPA (National Institute for Alcohol and Drug Prevention), Lausanne	x	-	-	-

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>United Kingdom</b>	University of Manchester, School of Nursing, Midwifery and Health Visiting, Manchester; Prof. Ch Todd	X	-	-	-
	University of Manchester, Prof. dr. A. Burns, Prof. D. Challis	X	-	X	-
	University of Southampton, School of Psychology, Southampton; Prof. L Yardley	-	-	X	-
	University of Sheffield, Prof. R Watson	-	-	X	-
	University of Exeter; Prof. D. Richards	-	X	X	-
	Guy's, King's and St. Thomas School of Medicine, Institute of Psychiatry, London; Prof. S. Wessely	X	-	-	-
	Professor Jonathan Watson University of Nottingham Medical School	X	-	-	-
	University of Cardiff; Prof. Laurence Moore	X	-	-	-
	Lancaster University and Cardiff University, ESRC Centre for Economic and Social Aspects of Genomics, Cardiff; Prof. Ruth Chadwick	X	-	-	-
	University of Cardiff	X	-	-	Management respiratory tract infection

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Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	King's College London, Centre of Biomedicine & Society (CBAS), London; Barbara Prainsack	X	-	-	-
	King's College London, Institute of Psychiatry, Department of Forensic Mental Health Science; Prof. Sheilagh Hodgins	X	-	-	-
	King's College; Prof. I. Norman, Prof. P. Griffiths	-	-	-	-
	King's Fund; Prof. Chris Ham (director)	X	-	-	-
	University of East London, School of Psychology; MR McDermott	X	-	-	-
	University of London; Prof. Robert West	X	-	-	-
	London School of Hygiene and Tropical Medicine; Prof. Martin McKee	X	-	-	-
	University of Edinburgh; Prof. Aziz Sheikh	X	-	-	-
	University of Oxford; Prof. Robert Walton	X	-	-	-
	University of Oxford	-	-	X	Brisbane group
	University of Sussex, Brighton	-	-	-	-
	Nuffield Trust, London; Jennifer Dixon (director) & Rebecca Rosen (senior researcher)	-	-	-	-
	University of Aberdeen	X	-	-	Oncology in Primary Care

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Outside Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Australia</b>	Cancer Council Victoria; Prof. Melanie Wakefield	x	-	-	-
	University of Brisbane; Prof. Neville Owen	x	-	-	-
	University of Melbourne	x	-	-	Primary Care research
<b>Canada</b>	University of Alberta; Prof. Ron Plotnikoff, Tanya Berry	x	-	-	-
	University of Waterloo; Prof. Geoffrey T. Fong	x	-	-	-
	University of Montreal; Prof. Bartha Knoppers	x	-	-	-
	Public Health Agency; Mohammed Kamali	x	-	-	-
	University of Sherbrooke, Occupational Health & Safety Agency for Healthcare (OHSAH), Quebec	x	-	-	-
	Université de Sherbrooke, Département de Médecine de Famille, Unité de Médecine de Famille de Chicoutimi, prof. Martin Fortin and co-workers	x	-	x	-
<b>Ethiopia</b>	University of Awassa	-	x	-	Research training
	University of Mekelle	x	x	-	Research training, supervision of two PhD students

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Outside Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Israel</b>	Tel-Aviv University, National Laboratory for the Genetics of Israeli Populations (NLGIP), Sackler Faculty of Medicine, Tel-Aviv; David Gurwitz	x	-	-	-
<b>Kenya</b>	Population Council, Nairobi University of Eldoret	-	x	-	Research training
<b>New Zealand</b>	University of New Zealand; Brian Cox	x	-	-	-
	University Of Otago	x	-	-	-
<b>Singapore</b>	National University of Singapore, Center for Health Services Research	x	-	-	x <sup>1</sup>
<b>South Africa</b>	University of KwaZuluNatal, South Africa; Prof. Noddy Jinhabai, Prof. Anna Meyer Weytz; Myra Taylor	x	-	-	-
	Medical Research Council, Capetown; Prof Priscilla Reddy	x	-	-	MOU met UM (Memorandum of Understanding)
	University of Limpopo; Hans Onya	-	-	x	-
	University of Pretoria	x	-	-	-
	University of Venda	x	-	-	-

x<sup>1</sup> Visiting associate professorship Bert Vrijhoef

x<sup>2</sup> Prof Scott Leischow has been appointed as honorary professor at the dept. of Health Promotion

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Outside Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Suriname</b>	Anton de Kom Universiteit, Paramaribo	x	-	-	-
<b>USA</b>	University of Boston; Ass. Prof. Robert Friedman	x	-	-	-
	University of Chapel Hill; Prof. Marci Campbell	x	-	-	-
	University of Michigan; Prof. Ken Resnicow	x	-	-	-
	University of Michigan/ Institute of Gerontology, Ann Arbor; L.M. Verbrugge	x	-	-	-
	Arizona Cancer Center, Prof. Scott Leischow	x	-	-	x <sup>2</sup>
	Dept of Epidemiology and Public Health Yale University School of Medicine New Haven; Prof Stanislav V. Kasl	x	-	-	-
	New York University; Prof. L. Capezuti	x	-	-	-
	New England Research Institutes, Institute for Studies on Aging, Watertown MA; Prof. S. Tennstedt	x	-	-	-
	University of Texas, Houston; Prof. Kay Bartholomew, Prof. Guy Parcel	x	-	-	-
	University of North Dakota	x	-	-	-
	Emory university Atlanta; Karen Glanz	x	-	-	-

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Outside Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	Harvard Medical School, Genetics Department (Church lab), Boston; Prof. George M. Church	X	-	-	-
	Vanderbilt University, Nashville Tennessee; Prof. Frances Glascoe	X	-	-	-
	National Office of Public Health Genomics, CDC Atlanta; Muin Khoury	X	-	-	-
	University of Washington, Seattle; Prof. Wylie Burke	X	-	-	-
	University of Pennsylvania, Philadelphia; Guy Diamon	X	-	-	-
	National Institutes on Aging, National Institutes of Health, Laboratory of Epidemiology, Demography and Biometrics, Bethesda, Maryland	X	-	-	-
	University of Rhode Island; Prof. Wayne F. Velices, Prof. J. Prochaska, Prof. C. DiClimente	X	-	-	-
	Wake Forest University School of Medicine, Sticht Center on Aging, Section on Gerontology and Geriatric Medicine, Winston-Salem, North Carolina; S.B. Kritchevsky	X	-	-	-
	Stanford University, Center for Health Policy; Kathryn McDonald	X	-	-	-
	The Commonwealth Fund, New York/ Washington	X	-	-	-

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Outside Europe					
Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
	Group Health, MacColl Institute for Healthcare Innovation; Edward H. Wagner, Seattle	x	-	-	-
	Group Health Research Institute, Seattle	-	x	-	-

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**Networks**

**1 → Euregio II: Grant agreement 2007118 Executive Agency for Health and Consumers (EAHC)**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Austria</b>	Gesundheitsmanagement Burger-Wieland OG - GM	x	-	x	-
<b>Belgium</b>	European Hospital and Healthcare Federation (HOPE)	x	-	x	-
<b>Germany</b>	Öffentliche Einrichtung Kreis Heinberg	x	-	x	-
	Euregio Rhein-Waal - ERW	x	-	x	-
	Association of European Border Regions - AEBR	x	-	x	-
	Landesinstitut für Arbeit und Gesundheit NRW – LIGA.NRW	x	-	x	-
<b>Netherlands</b>	Maastricht University	x	-	x	Coordinator

→ →

Networks					
2 → ECHRP: European Child Health Research Platform. RICHe FP-7 project					
		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>Austria</b>	Johannes Kepler Universität Linz; Reli Mechtler	X	-	X	-
<b>Czech Republic</b>	Masaryk University; Alex Bourek	X	-	X	-
<b>Estonia</b>	National Institute for Health Development; Prof. Veidebaum	X	-	X	-
<b>France</b>	INSERM, Institut National de la Santé et de la Recherche Médicale; Prof Zeitlyn	X	-	X	-
<b>Germany</b>	Universitätsklinikum Hamburg- Eppendorf; Prof. Ravens-Sieberer	X	-	X	-
<b>Hungary</b>	National Centre for Epidemiology; Prof. Csilla Kaposvarn	X	-	X	-
<b>Iceland</b>	Reykjavik University / Centre for Child Health Services; Prof. Geir Gunnlaugsson	X	-	X	-
<b>Ireland</b>	Dublin City University; Prof. Anthony Staines	X	-	X	Coordinator
	Health Research Board; Ann McCarthy	X	-	X	-
	National University of Ireland- Galway; Saoirse NicGabhainn	X	-	X	-
	Open Applications Consulting Limited; Mel McIntyre	X	-	X	-
<b>Italy</b>	Università degli Studi di Trieste; Giorgio Tamburlin	X	-	X	-
	Università degli Studi di Milano, Italy; Dr. Lombard	X	-	X	-

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**Networks**

**2 → ECHRP: European Child Health Research Platform. RICHe FP-7 project  
www.childhealthresearch.eu**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Netherlands</b>	Maastricht University (UM); Prof. Angela Brand	X	-	X	-
	Erasmus Universitair Medisch Centrum Rotterdam; Prof. Hein Raaijmakers	X	-	X	-
<b>Poland</b>	Nofer Institute of Occupational Medicine; Dr. Polanska	X	-	X	-
<b>Portugal</b>	Universidade Técnica de Lisboa; Prof. Gaspar de Mato	X	-	X	-
<b>Romenia</b>	Universitatea Babes Bolyai; Prof. Livia Popescu	X	-	X	-
<b>Slovenia</b>	Institute of Public Health of the Republic of Slovenia; Tit Albrecht	X	-	X	-
<b>Sweden</b>	National Institute of Public Health; Prof. Anders Hjertqvist	X	-	X	-
<b>UK</b>	University of Keele; Prof. Michael Rigby	X	-	X	-
	University of Newcastle upon Tyne; Prof. Allan Colver	X	-	X	-
	The University of Edinburgh/ HBSC-Scotland: Prof. Curry	X	-	X	-
	Imperial College of Science Technology and Medicine, London; Mitch Blair	X	-	X	-

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**Networks**

**3 → EU Marie Curie PhD-summer schools EANS**

		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>Finland</b>	University of Turku	x	-	x	Coordinator
<b>Ireland</b>	Dublin City University, Dublin	x	-	x	-
<b>Italy</b>	Università degli Studi di Padova	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>United Kingdom</b>	University of York, Heslington	x	-	x	-

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**Networks**

**4 → EU RightTimePlaceCare: “Improving health services for European citizens with dementia: Development of best practice strategies for the transition from ambulatory to institutional long-term care facilities”. Collaborative project, small or medium-scale focused research project. Grant Agreement no.: 242153**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Estonia</b>	Tartu Ulikool, Tartu	X	-	X	-
<b>Finland</b>	Turun Yliopisto, Yliopistonmaki, Turku	X	-	X	-
<b>France</b>	Centre Hospitalier universitaire de Toulouse	X	-	X	-
<b>Germany</b>	Private Universitaet Witten/ Herdecke gGmbH, Witten	X	-	X	Coordinator
<b>Netherlands</b>	Maastricht University (UM)	X	-	X	-
<b>Spain</b>	Fundacio Privada Clinic per a la Recerca Biomedica, Barcelona	X	-	X	-
<b>Sweden</b>	Lunds Universitet, Lund	X	-	X	-
<b>United Kingdom</b>	The University of Manchester	X	-	X	-

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<b>Networks</b>					
<b>5 → Preventing elderly abuse</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Austria</b>	Austrian Red Cross (ARC)	x	-	x	-
<b>Germany</b>	Medical Advisory Service of Health insurance (MDS)	x	-	x	Coordinator
<b>Luxemburg</b>	Cellule d'Évaluation et d'Orientation	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>Spain</b>	Inegma Grupo Matia Ingerna Foundation	x	-	x	-
<b>6 → PREPARE “Promoting sexual and reproductive health among adolescents in southern and eastern Africa–mobilising schools, parents and communities.” Grant agreement no.: 241945</b>					
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>Norway</b>	University of Bergen	x	-	x	Coordinator
	University of Oslo	x	-	x	-
<b>South-Africa</b>	University of Cape Town	x	-	x	-
	University of Limpopo	x	-	x	-
<b>Tanzania</b>	Muhimbili University of Health and Allied Sciences	x	-	x	-
<b>Uganda</b>	Makerere University, Kampala	x	-	x	-
<b>United Kingdom</b>	University of Sussex	x	-	x	-

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**Networks**

**7 → ACCESS “Access strategies for teen smoking cessation in Europe” (www.access-europe.com)**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Austria</b>	Institut für Sozial- und Gesundheitspsychologie, Vienna; Karl Bohm	x	-	x	-
<b>Belgium</b>	FARES Foundation Against Respiratory Diseases, Brussels; Michel Pettiaux	x	-	x	-
<b>Czech Republic</b>	General University Hospital in Prague, Center for Tobacco Dependent, Praha; Eva Kralikova	x	-	x	-
<b>Denmark</b>	Danish Cancer Society; Peter Dalum	x	-	x	-
<b>Germany</b>	IFT - Institut für Therapiefor- schung, Munich; Anneke Bühler	x	-	x	Coordinator
	GABO:mi Gesellschaft für Ablauforganisation :milliarium mbH & Co. KG, Munich; Annina Sorgner	x	-	x	-
<b>Latvia</b>	Riga City Council Department of Welfare, Health Care Administration; Inga Dreimane	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>Slovak Republic</b>	Stop Smoking - NGO Bratislava; Peter Štastný	x	-	x	-

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**Networks**

**8 → DISMEVAL: “Developing and validating disease management evaluation methods for European Health care systems” Health-f2-2008-223277 (<http://www.dismeval.eu/project/>)**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Austria</b>	Paracelsus Medizinische Privatuniversität Salzburg	x	-	x	-
<b>Denmark</b>	Københavns Universitet, Copenhagen	x	-	x	-
<b>France</b>	Université Paris XII – Val de Marne, Créteil	x	-	x	-
	Centre Anticancéreux Léon Bérard	x	-	x	-
<b>Germany</b>	Johann Wolfgang Goethe University Frankfurt am Main	x	-	x	-
	AQUA-Institut für angewandte Qualitätsförderung und Forschung im Gesundheitswesen GmbH, Göttingen	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>Spain</b>	Instituto de Salud Carlos III, Madrid	x	-	x	-
<b>United Kingdom</b>	London School of Hygiene and Tropical Medicine	x	-	x	-
	RAND Europe Cambridge	x	-	x	Coordinator

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**Networks**

**9 → Knowledge Integration in Quitlines: Networks that Improve Cessation (KIQNIC)  
Grantno 3R01CA128638-03S2**

		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>USA</b>	University of Arizona, Tucson	x	-	x	Coordinator (PI and co-investigators)
	University of British Colombia	x	-	x	Hosting co-investigators
	NAQC, North American Quitlines Consortium	x	-	x	The network of stop smoking quitlines that is under investigation in this grant and hosting co-investigators
<b>Canada</b>	Insource research group Canada, Vancouver	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-

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<b>Networks</b>					
<b>10 → ECAB: EU Cross Border Care Collaboration (FP7-project)</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Austria</b>	European Centre for Social Welfare Policy and Research in Vienna; Manfred Huber	x	-	x	-
<b>Belgium</b>	Observatoire Social Europeen in Brussels; Rita Baeten	x	-	x	-
<b>Belgium/ Denmark</b>	European Observatory on Health Systems and Policies in Brussels/ Copenhagen; Josep Figueras	x	-	x	-
<b>Estonia</b>	PRAXIS Center for Policy Studies in Tallinn; Ain Aaviksoo	x	-	x	-
<b>Finland</b>	National Research and Development Centre for Welfare and Health in Helsinki; Ilmo Keskimäki	x	-	x	-
<b>Germany</b>	Technische Universität Berlin; Reinhart Busse	x	-	x	-
<b>Hungary</b>	Semmelweis Egyetem in Budapest; Zoltán Szabó	x	-	x	-
<b>Italy</b>	Regione del Veneto in Venice; Luigi Bertinato	x	-	x	-
<b>Netherlands</b>	Universiteit Maastricht (UM)	x	-	x	-
<b>Slovenia</b>	Institute of Public Health of the Republic of Slovenia in Ljubljana; Tit Albreht	x	-	x	-
<b>Spain</b>	University of Barcelona; Joan Gil	x	-	x	-

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**Networks**

**10 → ECAB: EU Cross Border Care Collaboration (FP7-project)**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
United Kingdom	The London School of Economics and Political Science- Health Centre in London; Elias Mossialos	x	-	x	Coordinator
	London School of Hygiene and Tropical Medicine; Martin McKee	x	-	x	-

**11 → Euregio III. Grant agreement 20081218 Executive Agency for Health and Consumers (EAHC)**

Hungary	Semmelweis Egyetem	x	-	x	-
Italy	Regione del Veneto	x	-	x	-
Netherlands	European Centre for Health Assets and Architecture (ECHAA), Utrecht	x	-	x	-
	Maastricht University (UM)	x	-	x	-
United Kingdom	Health clusternet LTD University of Liverpool	x	-	x	Coordinator

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<b>Networks</b>					
<b>12 → Value Isobars</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Austria</b>	Dialog gentechnik, Wien	x	-	-	-
<b>Germany</b>	Eberhard Karls Universitat Tübingen, Interfakultäres Zentrum für Ethik in den Wissenschaften	x	-	-	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	-	Coordinator
<b>Norway</b>	National Committees for Research Ethics, Oslo	x	-	-	-
<b>Portugal</b>	ISCTE, University of Lisbon	x	-	-	-
<b>United Kingdom</b>	London School of Economics	x	-	-	-
<b>13 → EUMUSC: European Muculoskeletal Conditions Surveillance and Information Network. Agreement number 2008 13 01</b>					
<b>Austria</b>	Medizinische Universität Wien (MUW)	x	-	x	-
<b>Czech Republic</b>	Revmatologický Ústav, Institute of Rheumatology (RU)	x	-	x	-
<b>Finland</b>	MEDCARE OY (MEDCARE)	x	-	x	-
<b>France</b>	University de Nancy/ Henri Poincare (UHP)	x	-	-	-
	Assistance publique des hopitaux de Paris (AP-HP) Hopital Cochin	x	-	x	-
<b>Greece</b>	University of Crete (UOC)	x	-	x	-
<b>Italy</b>	Università degli studi di Genova (UNIGE)	x	-	x	-

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**Networks**

**13 → EUMUSC: European Muculoskeletal Conditions Surveillance and Information Network.  
Agreement number 2008 13 01**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Netherlands</b>	TNO Netherlands organisation for applied scientific research (TNO)	x	-	x	-
	Academisch ziekenhuis Leiden (LUMC)	x	-	x	-
	Reumapatientenbond vereniging (BOND)	x	-	x	-
	Maastricht University (UM)	x	-	x	-
<b>Norway</b>	Diakonhjemmet Sykehus AS (DS)	x	-	x	-
<b>Poland</b>	Instytut Reumatologii (IR)	x	-	x	-
	Spitalul Clinic Dr. I Cantacuzino (CANTA)	x	-	x	-
<b>Romania</b>	Universitatea de Medicina si Farmacie Carol Davila Bucuresti (UMFCD)	x	-	x	-
<b>Slovenia</b>	Universtetni Klinicni Center Ljubljana (UMC-LJ)	x	-	x	-
<b>Spain</b>	Fundación Española de Reumatología (FER)	x	-	x	-
<b>Sweden</b>	Lunds Universitet (LU)	x	-	x	-
	Reumatikerforbundet (SRA)	x	-	x	-
<b>United Kingdom</b>	University of Leeds (UNILEEDS)	x	-	x	-
	The Royal Cornwall Hospitals and West Cornwall Hospital National Health Service Trust	x	-	x	Coordinator

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<b>Networks</b>					
<b>14 → HLS-EU Agreement number – 2007113</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Austria</b>	Ludwig Boltzmann Gesellschaft GmbH – LBG GmbH	x	-	x	-
<b>Bulgaria</b>	Faculty of Public Health, Medical University - FPH	x	-	x	-
<b>Germany</b>	Landesinstitut für Arbeit und Gesundheit NRW – LIGA.NRW	x	-	x	-
<b>Greece</b>	National School of Public Health	x	-	x	-
<b>Netherlands</b>	Rijksinstituut voor Volksgezondheid en Milieu - RIVM	x	-	x	-
	Maastricht University (UM)	x	-	x	Coordinator
<b>Poland</b>	Instytut Kardiologii i. Prymasa Tysiąclecia Stefan Kardynała Wyszyńskiego - IKARD	x	-	x	-
<b>Spain</b>	Fundació Biblioteca Josep Laporte	x	-	x	-
<b>United Kingdom</b>	National Consumer Council – National Social Marketing Centre – NSM Centre	x	-	x	-

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**Networks**

15 → EAHC 2009 – Developing Public Health Capacity – contract number 2009 2009 62 05

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Belgium</b>	Association of Schools of Public Health in the European Region (ASPHER)	x	-	x	-
	European Health Management Association (EHMA)	x	-	x	-
	EuroHealthNet	x	-	x	-
<b>France</b>	International Union for Health Promotion and Education (IUHPE)	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM) European Public Health Association (EUPHA)	x	-	x	Coordinator

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**Networks**

**16 → ASSPRO CEE 2007: Assessment of patient payment policies and projection of their efficiency, equity and quality effects: the case of Central and Eastern Europe.  
Grant Agreement number - 217431**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Bulgaria</b>	Medical University of Varna (MU-Varna)	X	-	X	-
<b>Hungary</b>	Center for Public Affairs Studies Foundation (CPASF)	X	-	X	-
<b>Lithuania</b>	Public Enterprise "MTVC"	X	-	X	-
<b>Netherlands</b>	Maastricht University (UM)	X	-	X	Coordinator
<b>Poland</b>	Uniwersytet Jagiellonski Collegum Medicum (UJ CM)	X	-	X	-
<b>Romania</b>	Scoala Nationala de Sanatate Publica si Management Sanitar (SNSPMS)	X	-	X	-
<b>Ukraine</b>	Shkola Ohorony Zdorovia	X	-	X	-

**17 → PHGEN II**

<b>Austria</b>	University of Vienna	X	-	X	-
<b>Belgium</b>	Katholieke Universiteit Leuven	X	-	X	-
<b>Bulgaria</b>	Medical University of Varna, Faculty of Public Health	X	-	X	-
<b>Denmark</b>	Syddansk Universitet / University of Southern Denmark	X	-	X	-
<b>France</b>	Institut National de la Santé et de la Recherche Médicale	X	-	X	-

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Networks					
17 → PHGEN II					
		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>Germany</b>	Ruhr-Universität Bochum	x	-	x	-
	Philipps-Universität Marburg	x	-	x	-
	BioGlobe GmbH	x	-	x	-
	Max Planck Institute for Molecular Genetics,	x	-	x	-
<b>Hungary</b>	University of Debrecen, Medical and Health Science Centre	x	-	x	-
<b>Italy</b>	Fondazione IRCCS, Ospedale Maggiore Policlinico, Mangiagalli e Regina Elena, Italy	x	-	x	-
	Universita' Cattolica del Sacro Cuore, Italy	x	-	x	-
<b>Netherlands</b>	Vrije Universiteit Amsterdam	x	-	x	-
	University of Twente	x	-	x	-
	Maastricht University (UM)	x	-	x	Coordinator
<b>Norway</b>	Norwegian Group on Inherited Cancer	x	-	x	-
<b>Poland</b>	National Institute of Public Health- National Institute of Hygiene	x	-	x	-
<b>Portugal</b>	Instituto Nacional de Saude	x	-	x	-
<b>Spain</b>	Fundación Centro Nacional de Investigaciones Oncológicas Carlos III	x	-	x	-

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<b>Networks</b>					
<b>17 → PHGEN II</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
	Osteba, Basque Office for HTA. Department of Health. Basque Country	x	-	x	-
<b>United Kingdom</b>	Genetic Interest Group	x	-	x	-
<b>18 → ECN (from 2001 – 2005)</b>					
<b>Belgium</b>	Catholic University Leuven: Chris Gastmans	x	-	x	-
<b>Finland</b>	5) University of Turku; Helena Leino-Kilpi	x	-	x	-
<b>Greece</b>	National and Kapodistrian University of Athens; Chryssoula Lemonidou	x	-	x	-
<b>Italy</b>	Istituto Scientifico H San Raffaele; Roberta Sala	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM); Arie van der Arend	x	-	x	Coordinator
<b>Poland</b>	Jagiellonian University Medical College; Zbigniew Zalewski	x	-	x	-
<b>United Kingdom</b>	University of Wales College of Medicine; Win Tadd	x	-	x	-
	University of Wales Swansea; Paul Wainwright	x	-	x	-

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**Networks**
**19 → AMPHORA EU (www.amphoraproject.net) – collaborative research project funded by the EC FP7**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Austria</b>	Anton Proksch Institut (API)	x	-	x	-
	European Centre for Social Welfare Policy and Research (ECV)	x	-	x	-
<b>Finland</b>	National Institute for Health and Welfare (THL)	x	-	x	-
	Nordiskt välfärdscenter (NVC)	x	-	x	-
<b>Germany</b>	Chemisches und Veterinäruntersuchungsamt Karlsruhe (CVUAKA)	x	-	x	-
	Centre for Applied Psychology, Social and Environmental Research (ZEUS)	x	-	x	-
	Central Institute of Mental Health (CIMH)	x	-	x	-
	Technische Universität Dresden (TUD)	x	-	x	-
<b>Hungary</b>	Budapesti Corvinus Egyetem (BCE)	x	-	x	-
<b>Italy</b>	Azienda Sanitaria Locale della Città di Milano (ASL MILANO)	x	-	x	-
	Agenzia Regionale di Sanità della Toscana (ARS)	x	-	x	-
	Eclectica snc di Amici Silvia Ines, Beccaria Franca & C. (ELECTICA)	x	-	x	-

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Networks					
19 → AMPHORA EU (www.amphoraproject.net) – collaborative research project funded by the EC FP7					
		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
	Istituto Superiore di Sanità (ISS)	x	-	x	-
<b>Netherlands</b>	Dutch Institute for Alcohol Policy (STAP)	x	-	x	-
	TRIMBOS-instituut (TRIMBOS)	x	-	x	-
	Universiteit Twente (UT)	x	-	x	-
	Maastricht University (UM)	x	-	x	-
<b>Norway</b>	University Of Bergen (UiB)	x	-	x	-
	Norwegian Institute for Alcohol and Drug Research (SIRUS)	x	-	x	-
<b>Poland</b>	State Agency for Prevention of Alcohol-Related Problems (PARPA)	x	-	x	-
	Institute of Psychiatry and Neurology (IPiN)	x	-	x	-
<b>Slovenia</b>	Inštitut za raziskave in razvoj (UTRIP)	x	-	x	-
<b>Spain</b>	Generalitat de Catalunya (gencat)	x	-	x	-
	IREFREA	x	-	x	-
	Anderson, Consultant in Public Health (PANCPH)	x	-	x	Prof. Peter Anderson has accepted a Chair at CAPHRI in the area of Alcohol and Health)
	Hospital Clinic I Provincial de Barcelona (HCB)	x	-	x	Coordinator
<b>Sweden</b>	Stockholms Universitet (SU)	x	-	x	-

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**Networks**

**19 → AMPHORA EU (www.amphoraproject.net) – collaborative research project funded by the EC FP7**

Country	Name of partner	Type of collaboration			
		Research	Education	Network	Other
<b>Switzerland</b>	Swiss institute for the Prevention of Alcohol and Drug Problems (SIPA)	x	-	x	-
<b>UK</b>	Alcohol & Health Research Unit, University of the West of England (UWE)	x	-	x	-
	Institute of Psychiatry, King's College London (KCL)	x	-	x	-
	Liverpool John Moores University (LJMU)	x	-	x	-
	University of York (UoY)	x	-	x	-

**20 → EUGIM (European Curriculum in Gender Medicine) – EU Lifelong Learning Programme**

<b>Austria</b>	Innsbruck Medical University, Women's Health Centre of Innsbruck and Chair Working Group for Equal Treatment; Prof. Margarethe Hochleitner	-	x	x	-
<b>Germany</b>	Universitätsmedizin Berlin, Institute of Gender in Medicine (GiM), Charité; Prof. Vera Regitz-Zagrosek	-	x	x	Coordinator
<b>Hungary</b>	Semmelweis University, Budapest, Institute of Behavioural sciences; Prof. Mária Kopp Assistance: Szilvia Ádám	-	x	x	-

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<b>Networks</b>					
<b>20 → EUGIM (European Curriculum in Gender Medicine) – EU Lifelong Learning Programme</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Italy</b>	Università di Sassari Dip. Scienze del Farmaco; Prof. Flavia Franconi	-	x	x	-
<b>Netherlands</b>	Maastricht University (UM); Ineke Klinge	-	x	x	-
	University of Nijmegen Dept. General Practice and Social Medicine: Prof. Toine Lagro-Janssen	-	x	x	-
<b>Sweden</b>	Karolinska Institute, Stockholm Centre for Gender Medicine; Prof. Karin Schenck	-	x	x	-
<b>21 → ETHICs WEB</b>					
<b>Denmark</b>	Center For Etik OG Ret Ovrige Virksomhedsformer, Kobenhavn	x	-	x	-
<b>Estonia</b>	Tartu Ulikool, Tartu	x	-	x	-
<b>France</b>	Institut National de la Santé et de la Recherche Médicale (INSERM), Paris	x	-	x	-
	United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris	x	-	x	-
<b>Germany</b>	Rheinische Friedrich-Wilhelms- Universität Bonn	x	-	x	Coordinator

→ →

<b>Networks</b>					
<b>21 → ETHICs WEB</b>					
		<b>Type of collaboration</b>			
<b>Country</b>	<b>Name of partner</b>	<b>Research</b>	<b>Education</b>	<b>Network</b>	<b>Other</b>
<b>Germany</b>	Georg-August-Universitaet Goettingen Stiftung Oeffentlichen Rechts, Goettingen	x	-	x	-
	Eberhard-Karls-Universitat Tubingen	x	-	x	-
<b>Italy</b>	Istituto Surperiore di Sanita, Roma	x	-	x	-
<b>Lithuania</b>	Vilniaus Universitetas, Vilnius	x	-	x	-
<b>Netherlands</b>	Universiteit Utrecht	x	-	x	-
	Maastricht University (UM)	x	-	x	-
<b>Romania</b>	Universitatea din Bucuresti	x	-	x	-
<b>Slovenia</b>	Univerza v Ljubljani	x	-	x	-
<b>Spain</b>	Fundación Epsón Ibérica, Barcelona	x	-	x	-
<b>Sweden</b>	Karolinska Institutet, Stockholm	x	-	x	-
<b>United Kingdom</b>	Cardiff University, Cardiff	x	-	x	-

→ →

Networks					
22 → Engender					
		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>Belgium</b>	European Men's Health Forum, Brussels	x	-	x	-
<b>Czech Republic</b>	National Institute of Public Health, Prague	x	-	x	-
<b>Hungary</b>	National Institute for Health Development, Budapest	x	-	x	-
<b>Ireland</b>	European Institute of Womens's Health, Dublin	x	-	x	-
<b>Italy</b>	Regione del Veneto	x	-	x	-
<b>Latvia</b>	State Agency "Public Health Agency", Riga	x	-	x	-
<b>Netherlands</b>	Maastricht University (UM)	x	-	x	-
<b>Slovenia</b>	Institute of Public Health of the Republic of Slovenia, Ljubljana	x	-	x	-
<b>Sweden</b>	Karolinska Institutet, Stockholm	x	-	x	Coordinator
	Swedish National Institute of Public Health, Oestersund	x	-	x	-

→ →

Networks					
23 → MRSA Euro safety					
		Type of collaboration			
Country	Name of partner	Research	Education	Network	Other
<b>Belgium</b>	University of Liege	x	-	-	-
	Virgia Jesse Hospital in Hasselt	x	-	-	-
	St. Nikolaas Hospital, Eupen	x	-	-	-
	Öffentliches Sozialhilfezentrum, Eupen	x	-	-	-
	Provincie Limburg	x	-	-	-
<b>Germany</b>	Gesundheitsamt Heinsberg	x	-	-	Coordinator
	Klinikum Aachen	x	-	-	-
	Institut für Hygiene und Umweltmedizin der RWTH, Aachen	x	-	-	-
	Gesundheitsamt Kreis, Düren	x	-	-	-
	Gesundheitsamt Kreis, Aachen	x	-	-	-
	Gesundheitsamt Stadt Aachen	x	-	-	-
	Gesundheitsamt Kreis, Euskirchen	x	-	-	-
<b>Netherlands</b>	Landesuntersuchungsamt, Rheinland-Pfal	x	-	-	-
	Maastricht UMC+, Dept. of Microbiology	x	-	-	-
	Municipal Health Department, Maastricht	x	-	-	-

In the recent QS World University Rankings, Maastricht University is among the top ten of the most international universities in the world.

# **Selection of grants obtained in recent years**

**Primary Care = PC**

**Innovation of Care = IC**

**Public Health = PH**

<b>PC</b>	Project	<b>BORAD-mictielijden</b>
	Value contract	€ 329.655
	Financed by	ZonMw

<b>PC</b>	Project	<b>The COSMO study</b>
	Value contract	€ 193.688
	Financed by	ZonMw

<b>PC</b>	Project	<b>Exit PAD</b>
	Value contract	€ 392.355
	Financed by	ZonMw

<b>PC</b>	Project	<b>NicVax - phase 3, ZonMw</b>
	Value contract	€ 271.713
	Financed by	ZonMw

<b>PC</b>	Project	<b>Vroege diagnose van astma bij kinderen</b>
	Value contract	€ 300.000
	Financed by	ZonMw / Stichting Atmabestrijding

<b>PC</b>	Project	<b>PostscriptUM</b>
	Value contract	€ 347.964
	Financed by	CZ en Univé-VGZ-IZA-Trias

<b>PC</b>	Project	<b>Clinical trial rimonabant</b>
	Value contract	€ 660.000
	Financed by	Industrie

<b>PC</b>	Project	<b>Amuse - 2</b>
	Value contract	€ 109.000
	Financing organisation	Julius Center / NHS

<b>PC</b>	Project	<b>Medical monitoring phase III - VTE studie</b>
	Value contract	€ 225.000
	Financed by	ICTOM B.V.

<b>PC</b>	Project	<b>Postdoc 2006 - NHS</b>
	Value contract	€ 267.392
	Financed by	Nederlandse Hartstichting

<b>PC</b>	Project	<b>NutsOhra - a promising preventive tool</b>
	Value contract	€ 119.369
	Financed by	NutsOHRA

<b>PC</b>	Project	<b>ZonMw - a promising preventive tool</b>
	Value contract	€ 111.400
	Financed by	ZonMw

<b>PC</b>	Project	<b>Verbetering zorg COPD-patiënten</b>
	Value contract	€ 80.000
	Financed by	Astma Fonds

<b>PC</b>	Project	<b>CRP-project - Orion</b>
	Value contract	€ 31.226
	Financed by	Orion Diagnostica Finland

**PC**  
 Project **COPD Exacerbations thuis**  
 Value contract € 307.594  
 Financed by ZonMw

**PC**  
 Project **Agiko-Impac3t**  
 Value contract € 42.354  
 Financed by ZonMw

**PC**  
 Project **Huisartsenzorg voor patiënten met kanker**  
 Value contract € 102.148  
 Financed by KWF

**PC**  
 Project **Rakker: multifaceted prevention of asthma**  
 Value contract € 385.959  
 Financed by ZonMw

**PC**  
 Project **Multidisciplinaire verbreding richtlijn**  
 Value contract € 165.883  
 Financed by KNGF

**PC**  
 Project **Kwaliteitsverbetering patiënten met osteoporose**  
 Value contract € 20.000  
 Financed by Eli Lilly Nederland BV

**PC**  
 Project **Onderzoek Fysiotherapie-WCF**  
 Value contract € 258.354  
 Financed by KNGF

**PC**  
 Project **Mother Fit**  
 Value contract € 60.000  
 Financed by Bosman B.V.

**PC**  
 Project **Effecten rookban in cafés**  
 Value contract € 99.183  
 Financed by Industrie

**PC**  
 Project **NicVax-3**  
 Value contract € 500.000  
 Financed by ZonMw

**PC**  
 Project **NicVax-3 - Nabi**  
 Value contract € 658.859  
 Financed by Nabi

**PC**  
 Project **Passief roken bij kinderen**  
 Value contract € 242.722  
 Financed by Astma Fonds

**PC**  
 Project **SpineGuide**  
 Value contract € 70.000  
 Financed by DSM

**PC**  
 Project **IMPAC3T-VIP**  
 Value contract € 25.000  
 Financed by ZonMw

**PC**  
 Project **Polypharmacy: too much or too little**  
 Value contract € 478.009  
 Financed by NPO

**PC**  
 Project **VINTAGE-Good health into older age**  
 Value contract € 30.000  
 Financed by EU

**PC**  
 Project **PEXACO**  
 Value contract € 10.274  
 Financed by University of Tromso - Norway

**PC**  
 Project **BMM – Young Investigator - Spinsguide**  
 Value contract € 704.000  
 Financed by BMM

**PC**  
 Project **BMM - NANTICO**  
 Value contract € 492.402  
 Financed by BMM

**PC**  
 Project **Q-Koorts**  
 Value contract € 237.378  
 Financed by ZonMw

**PC**  
 Project **OPTEMA**  
 Value contract € 997.678  
 Financed by SenterNovem

**PC**  
 Project **PREVEC study**  
 Value contract € 440.000  
 Financed by Chiesi / NCFS

**PC**  
 Project **COVACO Trial**  
 Value contract € 300.000  
 Financed by Pfizer bv / SGE

**PC**  
 Project **Early Career Award**  
 Value contract € 20.000  
 Financed by Trasher Research Fund

**PC**  
 Project **Shortterm Fellowship**  
 Value contract € 9.500  
 Financed by Astma Fonds

**PC**  
 Project **Beweegprogramma COPD**  
 Value contract € 40.000  
 Financed by Boehringer Ingelheim

**PC**  
 Project **MIKADO**  
 Value contract € 229.138  
 Financed by Astma Fonds

**PC**  
 Project **IMPAC3T-VIP**  
 Value contract € 25.000  
 Financed by ZonMw

<b>PC</b>	Project	<b>APRES</b>
	Value contract	€ 674.982
	Financed by	EU

<b>PC</b>	Project	<b>Participatie studie</b>
	Value contract	€ 222.552
	Financed by	ABBOTT BV

<b>IC</b>	Project	<b>Managemant van exacerbaties</b>
	Value contract	€ 336.583
	Financed by	ZonMw

<b>IC</b>	Project	<b>Eurodiale</b>
	Value contract	€ 553.188
	Financed by	EU

<b>IC</b>	Project	<b>NHS zelfmanagement hartfalen</b>
	Value contract	€ 300.307
	Financed by	Nederlandse Hartstichting

<b>IC</b>	Project	<b>EC Leonardo DELTAH</b>
	Value contract	€ 154.315
	Financed by	EC

<b>IC</b>	Project	<b>Pomona-2</b>
	Value contract	€ 65.645
	Financed by	EU

<b>IC</b>	Project	<b>NWO Consumer in the health care market</b>
	Value contract	€ 213.407
	Financed by	NWO

<b>IC</b>	Project	<b>EC Leonardo accreditatie</b>
	Value contract	€ 53.257
	Financed by	EU

<b>IC</b>	Project	<b>EU Marie Curie EANS</b>
	Value contract	€ 138.066
	Financed by	EC

<b>IC</b>	Project	<b>FEND diabetes specialist nurses</b>
	Value contract	€ 100.000
	Financed by	Federation Of European Nurses in Diabetes

<b>IC</b>	Project	<b>Mondriaan zorggroep</b>
	Value contract	€ 159.000
	Financed by	Mondriaan Zorggroep

<b>IC</b>	Project	<b>VWS evaluatie moreel beraad</b>
	Value contract	€ 244.932
	Financed by	VWS

<b>IC</b>	Project	<b>Pepijn en Paulus promotie-onderzoek</b>
	Value contract	€ 173.000
	Financed by	Stichting Pepijn en Paulus

<p><b>IC</b></p> <p>Project <b>Implementatie FTO-DTO model in zuidelijk</b></p> <p>Value contract € 199.283</p> <p>Financed by CZ Aktief in Gezondheid</p>	<p><b>IC</b></p> <p>Project <b>Vughterstede en Vivre Moreel Beraad</b></p> <p>Value contract € 150.000</p> <p>Financed by Stichting Vughterstede, Stichting Vivre</p>
<p><b>IC</b></p> <p>Project <b>Kleinschalig wonen dementie</b></p> <p>Value contract € 319.246</p> <p>Financed by Provincie Limburg, MeanderGroep ZL, Vivre, Sevagram, Orbis, De Zorggroep, CAPHRI</p>	<p><b>IC</b></p> <p>Project <b>St. Anna promotie-onderzoek</b></p> <p>Value contract € 204.000</p> <p>Financed by Stichting St. Anna / Koraalgroep</p>
<p><b>IC</b></p> <p>Project <b>VWS-vergelijking prevalentie Nederland-D</b></p> <p>Value contract € 442.621</p> <p>Financed by Ministerie van Volksgezondheid, Welzijn en Sport</p>	<p><b>IC</b></p> <p>Project <b>ZonMw FTO-DTO</b></p> <p>Value contract € 104.173</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>CVZ raamovereenkomst HTA</b></p> <p>Value contract € 400.000</p> <p>Financed by CVZ</p>	<p><b>IC</b></p> <p>Project <b>ZonMw orientatie en mobiliteitstraining</b></p> <p>Value contract € 130.000</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>COPD2 - Picasso</b></p> <p>Value contract € 149.864</p> <p>Financed by Pfizer BV</p>	<p><b>IC</b></p> <p>Project <b>NWO talent Goebbels</b></p> <p>Value contract € 180.000</p> <p>Financed by NWO</p>
<p><b>IC</b></p> <p>Project <b>NP als straatdokter</b></p> <p>Value contract € 37.124</p> <p>Financed by Stichting Kwaliteit en Ontwikkeling Huisartsenzorg</p>	<p><b>IC</b></p> <p>Project <b>ACTIZ verantwoorde zorg</b></p> <p>Value contract € 400.000</p> <p>Financed by Actiz</p>
<p><b>IC</b></p> <p>Project <b>Centra voor gezond leven</b></p> <p>Value contract € 199.941</p> <p>Financed by Provincie Limburg</p>	<p><b>IC</b></p> <p>Project <b>Gemeentebrede ketensamenwerking</b></p> <p>Value contract € 51.000</p> <p>Financed by Gemeente Maastricht</p>

<p><b>IC</b></p> <p>Project <b>Nationaal programma ouderenzorg</b></p> <p>Value contract € 150.000</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Proscriptum indicator-infrastructuur</b></p> <p>Value contract € 102.938</p> <p>Financed by CZ Aktief in Gezondheid</p>
<p><b>IC</b></p> <p>Project <b>ZonMw inhome selfmanagement</b></p> <p>Value contract € 480.579</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Diabetes en arbeid</b></p> <p>Value contract € 99.718</p> <p>Financed by Diabetes Fonds</p>
<p><b>IC</b></p> <p>Project <b>ASSPRO CEE WP</b></p> <p>Value contract € 1.446.496</p> <p>Financed by EU</p>	<p><b>IC</b></p> <p>Project <b>Quality of life adults with I.D.</b></p> <p>Value contract € 559.322</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>ZonMw - zelftesten</b></p> <p>Value contract € 301 724</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>ZonMw Exbelt</b></p> <p>Value contract € 200.057</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>Support Fast-track Multi-trauma</b></p> <p>Value contract € 413.054</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Wyeth-2</b></p> <p>Value contract € 303.278</p> <p>Financed by Industrie</p>
<p><b>IC</b></p> <p>Project <b>Innovatief zorgmodel voor ouderen-slecht</b></p> <p>Value contract € 32.481</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Implementatie BIB</b></p> <p>Value contract € 37.447</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>ZonMw Exercise and behaviour modification</b></p> <p>Value contract € 149.445</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Solutions for improving health care cooperation</b></p> <p>Value contract € 527.542</p> <p>Financed by EU</p>

<p><b>IC</b></p> <p>Project <b>Disease management of COPD and IT-IS</b></p> <p>Value contract € 245.850</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>DISMEVAL</b></p> <p>Value contract € 407.723</p> <p>Financed by EU</p>
<p><b>IC</b></p> <p>Project <b>ZonMW transitieproject 1</b></p> <p>Value contract € 753.303</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>Nierstichting thuis of in het ziekenhuis</b></p> <p>Value contract € 131.766</p> <p>Financed by Nierstichting</p>
<p><b>IC</b></p> <p>Project <b>Seksualiteit en VH/GKC</b></p> <p>Value contract € 170.000</p> <p>Financed by Lunet zorg</p>	<p><b>IC</b></p> <p>Project <b>Richtlijnen en patiëntenpreferenties</b></p> <p>Value contract € 169.253</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>Duurzame borging-Kwetsbare ouderen</b></p> <p>Value contract € 206.361</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>RVA groep</b></p> <p>Value contract € 95.397</p> <p>Financed by Reinier van Arkel Groep</p>
<p><b>IC</b></p> <p>Project <b>ZonMw Randomised Controlled Trial</b></p> <p>Value contract € 563.592</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>ZonMw Hartfalen bij verpleeghuisbewoners</b></p> <p>Value contract € 359.000</p> <p>Financed by ZonMw</p>
<p><b>IC</b></p> <p>Project <b>EU RightTimePlaceCare</b></p> <p>Value contract € 3.000.000</p> <p>Financed by EU KP7</p>	<p><b>IC</b></p> <p>Project <b>EU Preventing elderly abuse</b></p> <p>Value contract € 260.000</p> <p>Financed by EU DG Employment, social affairs and equal opportunities</p>
<p><b>IC</b></p> <p>Project <b>Implementation Fellow Maastricht</b></p> <p>Value contract € 100.000</p> <p>Financed by ZonMw</p>	<p><b>IC</b></p> <p>Project <b>ZonMw-NPO Nazorg CVA</b></p> <p>Value contract € 497.028</p> <p>Financed by ZonMw</p>

**IC**  
 Project **ZonMw Monitoring van fysieke kwetsbaarheid**  
 Value contract € 433.874  
 Financed by ZonMw

**IC**  
 Project **ZonMw Waarde van G(OD)**  
 Value contract € 423.760  
 Financed by ZonMw

**IC**  
 Project **ZonMw Innovatieve monitoring (NIG-TOP)**  
 Value contract € 675.000  
 Financed by ZonMw

**IC**  
 Project **ECAB**  
 Value contract € 339.744  
 Financed by EU

**IC**  
 Project **ZonMw advanced value**  
 Value contract € 125.000  
 Financed by ZonMw

**PH**  
 Project **ZON Health communication**  
 Value contract € 483 503  
 Financed by ZonMw

**PH**  
 Project **EU Europhen**  
 Value contract € 39.001  
 Financed by EU

**IC**  
 Project **ZonMw Op weg naar herstel**  
 Value contract € 495.914  
 Financed by ZonMw

**IC**  
 Project **Evaluatie wijkzorg**  
 Value contract € 109.000  
 Financed by GroeneKruisDomicura

**IC**  
 Project **ZonMw Integrated Senior Services (TP 4)**  
 Value contract € 508.104  
 Financed by ZonMw

**IC**  
 Project **Plotselinge hartstilstand en reanimatie**  
 Value contract € 200.000  
 Financed by Mercurius Beleggingsmij

**IC**  
 Project **ZonMw evaluation of Kopstoring**  
 Value contract € 441.551  
 Financed by ZonMw

**PH**  
 Project **ZON gewoontegedrag**  
 Value contract € 450.589  
 Financed by ZonMw

**PH**  
 Project **NWO social influence smoking**  
 Value contract € 256.069  
 Financed by NWO

**PH**  
 Project **ZON Web-based HIV**  
 Value contract € 296.970  
 Financed by ZonMw

**PH**  
 Project **NWO Nutrigenomics**  
 Value contract € 207.750  
 Financed by NWO

**PH**  
 Project **Voorspellend genetisch onderzoek**  
 Value contract € 218.000  
 Financed by ZonMw

**PH**  
 Project **NWO genetics and insurance**  
 Value contract € 420.286  
 Financed by NWO

**PH**  
 Project **NWO longitudinal multilevel studies**  
 Value contract € 166.721  
 Financed by NWO

**PH**  
 Project **ZON Depressie en stress**  
 Value contract € 250.000  
 Financed by ZonMw

**PH**  
 Project **Improvement education in primary care**  
 Value contract € 160.000  
 Financed by Dr. Paul Janssen Stichting

**PH**  
 Project **EU-Opti-Work**  
 Value contract € 94.150  
 Financed by EC

**PH**  
 Project **ZON dismantling**  
 Value contract € 375.450  
 Financed by ZonMw

**PH**  
 Project **ZON framing health education messages**  
 Value contract € 259.450  
 Financed by ZonMw

**PH**  
 Project **EU Europrevall**  
 Value contract € 47.040  
 Financed by EC

**PH**  
 Project **EU biotethed**  
 Value contract € 31.000  
 Financed by EC

**PH**  
 Project **Euregio II**  
 Value contract € 808.461  
 Financed by EC

**PH**  
 Project **Nuffic Quevedo Gomez**  
 Value contract € 74.000  
 Financed by Nuffic

<p><b>PH</b></p> <p>Project <b>EU Enhance</b></p> <p>Value contract € 108.600</p> <p>Financed by EU</p>	<p><b>PH</b></p> <p>Project <b>Nuffic Juma</b></p> <p>Value contract € 74.000</p> <p>Financed by Nuffic</p>
<p><b>PH</b></p> <p>Project <b>Zon depressie preventie</b></p> <p>Value contract € 563.395</p> <p>Financed by ZonMw</p>	<p><b>PH</b></p> <p>Project <b>LAC Publieke Gezondheid</b></p> <p>Value contract € 2.000.000</p> <p>Financed by ZonMw</p>
<p><b>PH</b></p> <p>Project <b>ZonMw internet exposure</b></p> <p>Value contract € 317.165</p> <p>Financed by ZonMw</p>	<p><b>PH</b></p> <p>Project <b>NWO Optimal fMRI designs</b></p> <p>Value contract € 176.714</p> <p>Financed by NWO</p>
<p><b>PH</b></p> <p>Project <b>UWV effectief aan het werk</b></p> <p>Value contract € 200.000</p> <p>Financed by Uitvoeringsinstelling UWV</p>	<p><b>PH</b></p> <p>Project <b>EU ProMenPol</b></p> <p>Value contract € 78.200</p> <p>Financed by EU</p>
<p><b>PH</b></p> <p>Project <b>ZonMw Inzicht</b></p> <p>Value contract € 199.000</p> <p>Financed by ZonMw</p>	<p><b>PH</b></p> <p>Project <b>ZonMW Relapse prevention</b></p> <p>Value contract € 391.869</p> <p>Financed by ZonMw</p>
<p><b>PH</b></p> <p>Project <b>NWO sports, genetics</b></p> <p>Value contract € 160.000</p> <p>Financed by NWO</p>	<p><b>PH</b></p> <p>Project <b>Alcoholisme en zwangerschap</b></p> <p>Value contract € 43.266</p> <p>Financed by Stichting tot steun VCVGZ</p>
<p><b>PH</b></p> <p>Project <b>ZonMw Disc Analyses</b></p> <p>Value contract € 445.084</p> <p>Financed by ZonMw</p>	<p><b>PH</b></p> <p>Project <b>KWF praktijkondersteuners</b></p> <p>Value contract € 434.000</p> <p>Financed by KWF</p>

**PH**  
 Project **ZonMw age ban alcohol consumption**  
 Value contract € 494.161  
 Financed by ZonMw

**PH**  
 Project **ZonMw DIEP**  
 Value contract € 301.520  
 Financed by ZonMw

**PH**  
 Project **ZonMw testing**  
 Value contract € 391.165  
 Financed by ZonMw

**PH**  
 Project **ZonMw Diffusion**  
 Value contract € 413.819  
 Financed by ZonMw

**PH**  
 Project **Intensieve stoppen met roken campagne 08**  
 Value contract € 41.000  
 Financed by STIVORO/ZonMw

**PH**  
 Project **Mutanom**  
 Value contract € 99.600  
 Financed by EU

**PH**  
 Project **Arbeid en zorg**  
 Value contract € 1.049.143  
 Financed by Stichting Instituut GAK

**PH**  
 Project **ZonMw Power district**  
 Value contract € 581.673  
 Financed by ZonMw

**PH**  
 Project **NWO Depression in chronically ill elderly**  
 Value contract € 31.559  
 Financed by NWO

**PH**  
 Project **Uitstoting uit arbeid**  
 Value contract € 116.528  
 Financed by Uitvoeringsinstelling UWV

**PH**  
 Project **European Health literacy survey**  
 Value contract € 1.185.063  
 Financed by EU

**PH**  
 Project **Zwangerschap en verslaving**  
 Value contract € 113.000  
 Financed by ZonMw

**PH**  
 Project **Nuffic Maulana**  
 Value contract € 84.650  
 Financed by Nuffic

**PH**  
 Project **Nuffic Shilubane**  
 Value contract € 84.650  
 Financed by Nuffic

**PH**  
 Project **EU Ethics Web**  
 Value contract € 826.329  
 Financed by EU

**PH**  
 Project **Health Investments in SF's (euregio III)**  
 Value contract € 106.789  
 Financed by EC

**PH**  
 Project **KWF publieksvoorlichting**  
 Value contract € 345.000  
 Financed by KWF Kankerbestrijding

**PH**  
 Project **EU PhD Summer schools EANS**  
 Value contract € 500.000  
 Financed by EU Marie Curie

**PH**  
 Project **CSG genomics of antisocial behaviour**  
 Value contract € 200.000  
 Financed by Centre for Society and Genomics

**PH**  
 Project **Value Isobars**  
 Value contract € 131.171  
 Financed by EU

**PH**  
 Project **Engender**  
 Value contract € 158.007  
 Financed by EU

**PH**  
 Project **Eugim**  
 Value contract € 22.464  
 Financed by EU

**PH**  
 Project **CSG The € 1.000 genomic**  
 Value contract € 200.000  
 Financed by Centre for Society and Genomics

**PH**  
 Project **Van arbeidsgeschiedt naar werk**  
 Value contract € 66.130  
 Financed by ArbeidskundigKennisCentrum

**PH**  
 Project **ZonMw Comparing two e-health programs**  
 Value contract € 426.913  
 Financed by ZonMw

**PH**  
 Project **ZonMw obesity prevention worksites**  
 Value contract € 370.206  
 Financed by ZonMw

**PH**  
 Project **ZonMw E-prevent S**  
 Value contract € 392.668  
 Financed by ZonMw

**PH**  
 Project **EU ACCESS**  
 Value contract € 32.854  
 Financed by EU

<b>PH</b>	Project	<b>EU Prepare</b>
	Value contract	€ 182.169
	Financed by	EU

<b>PH</b>	Project	<b>Miro Psychological Determinants</b>
	Value contract	€ 60.074
	Financed by	MIRO

<b>PH</b>	Project	<b>ZonMw Alcohol alert</b>
	Value contract	€ 410.963
	Financed by	ZonMw

<b>PH</b>	Project	<b>EU Amphora</b>
	Value contract	€ 29.036
	Financed by	EU

<b>PH</b>	Project	<b>ZonMw Child maltreatment</b>
	Value contract	€ 330.547
	Financed by	ZonMw

<b>PH</b>	Project	<b>Prometheus</b>
	Value contract	€ 18.750
	Financed by	European Health Management Association

<b>PH</b>	Project	<b>Lephie</b>
	Value contract	€ 112.920
	Financed by	EU

<b>PH</b>	Project	<b>EAHC tender health 2005</b>
	Value contract	€ 211.191
	Financed by	EU

## CAPHRI PhD student Quality and Monitoring system and TRACK system

**The current CAPHRI PhD quality system consists of the following 10 elements:**

- 1**  
A CAPHRI dossier of each PhD student (CV, appointment letter, project description, including time frame, supervisors, Training and Supervision Plan, annual progress reports);
- 2**  
Acquaintance meeting of the PhD student with the PhD co-ordinator at the start of the appointment;
- 3**  
A Training and Supervision Plan (TSP), compulsory for all PhD students. The TSP is signed by the PhD student, co-promoter, promoter, HR officer and should be approved by the PhD co-ordinator, within three months of appointment. The TSP is discussed in the annual meeting with the PhD co-ordinator. The TSP states that 200 working days (max.) are available for training and supervision, divided over participation in PhD courses; at least 40 days of supervision by the daily supervisor; and participation in conferences and workshops. A maximum of 10% may be spent on teaching;
- 4**  
Assessment appointment, 2-3 months before the end of the first year, with the (co-)promoter and the HR officer, on the basis of which it is decided to continue or end the PhD track (the 'go/no-go decision'). In case the promoter wishes to end the contract, this request is put before the PhD co-ordinator and the Scientific Director of CAPHRI. The latter decides, in consultation with the promoter, on the extension or termination of the contract of the PhD student. The PhD student can also request to terminate the contract;
- 5**  
An 'Annual Questionnaire on the progress and feedback on the quality of the supervision'. The PhD student is invited by the PhD TRACK monitoring system each year to fill out a lengthy questionnaire about the progress of the project, possible delay and the causes behind this, and to provide extensive feedback on the quality of the supervision by all (co)promoters involved in the project. The feedback on supervisors is a confidential part which can only be seen by the PhD co-ordinator, the progress part can be seen by all people involved in the project;
- 6**  
At least twice a year, the promoter(s) should log into the PhD TRACK system to mark the progress of the PhD project (red – serious problems regarding progress, orange – some problems, and green – progress is good). This can be done more or less frequently. Under each coloured period, the (co) promoter(s) can make explanatory notes. Both the PhD student and the involved supervisors have access to this part of the system;
- 7**  
Every PhD student has an annual appointment with the PhD co-ordinator to discuss the progress of the project, the quality of the supervision and any personal circumstances. In case of worries or problems regarding these aspects, this is discussed with the Scientific Director. Possible solutions are sought in consultation with those involved. At the end of the contract of each PhD student, and in rare cases of early termination of a contract, an exit talk is held to gain information on the student's experiences with supervision during the project;
- 8**  
Annual report written by the PhD co-ordinator with an overview of the results of the questionnaires on the progress and quality of the supervision. This is discussed in the CAPHRI Board of Education, consisting of the Scientific Director, the PhD coordinator, the confidential advisor, and CAPHRI PhD representatives;
- 9**  
In individual cases, the PhD student and/or (co)promoters are invited by the Scientific Director to discuss the progress and supervision, and make agreements about improvements or possible changes of supervisor(s). In case of very serious issues, the question to terminate the trajectory will be addressed. Reports of the talks are signed by the discussion partners and will be filed in the CAPHRI dossier of the PhD student;
- 10**  
In the fourth year, the PhD student is coached intensively to come to the completion and submission of the manuscript and to realise the doctoral degree. Halfway through this year, the PhD student, in consultation with the (co)promoter, makes an end report of the progress and assessment as to

whether the manuscript will be completed and submitted on time (in accordance with the agreed date). In case the trajectory is not attainable, this needs to be reported in time to the PhD coordinator and management office of CAPHRI. The Scientific Director discusses this delay with the responsible programme leader.

### **Annual Questionnaire on the progress and feedback on the quality of the supervision**

CAPHRI considers it very important that PhD students are enabled to progress through their PhD trajectory smoothly and successfully. For this, good supervision by the (co) promoters, as well as the support of CAPHRI, is essential. Therefore, CAPHRI actively monitors the progress of PhD students and quality of the supervision of PhD research projects by promoters and co-promoters. The aims of this PhD student quality system are to support PhD students during their trajectories, optimise their working circumstances, enable timely detection of problems, and increase the quality of the coaching and supervision. The PhD-TRACK system, in which the questionnaire is filed, supports CAPHRI in executing this quality system. All feedback, both positive and negative, from this questionnaire will be used by CAPHRI to monitor the progress of PhD trajectories, the overall performance of all supervisors involved in PhD projects, and to evaluate the performance of individual supervisors. CAPHRI considers feedback on the experiences of each PhD student of great importance.

Step 5 and 8 of the Quality and Monitoring system concern the annual CAPHRI PhD Questionnaire on Progress and Supervision. Annually, starting 9 months after the start of the PhD project, every PhD student is invited through the PhD TRACK system to provide CAPHRI with valuable information regarding the progress of the research project and the quality of the supervision that is provided by the team of promoters and co-promoters. The questionnaire consists of three parts: 1) general questions; 2) questions on the progress of the PhD project; and 3) questions on the coaching and supervision by the (co)promoters, where PhD students are asked to provide lengthy feedback on each of the supervisors (max. 4). CAPHRI values and ensures the confidentiality of part 3: co-promoters and promoters who log into the PhD TRACK system only have access to parts 1 and 2; the PhD TRACK system will never reveal the results of part 3 to supervisors,

these are only to be accessed by CAPHRI's PhD co-ordinator. Every year, the PhD co-ordinator analyses the data from this questionnaire and writes an overview report of the aggregated results. This report is discussed with the CAPHRI board of education. The data in this report is never traceable to individual scores. When insufficient progress of the project or insufficient supervision is reported, the PhD co-ordinator will inform the Scientific Director (step 9).

### **The CAPHRI PhD student database 'PhD TRACK'**

CAPHRI's PhD student database 'PhD TRACK', is a web-based application which was specifically built by CAPHRI in collaboration with a specialised ICT company in the Netherlands. Data are securely and centrally stored and accessible via the Internet. The three main tasks of this system are to register all CAPHRI PhD students, offer transparent ways of communication between PhD students and their supervisors, and to monitor the progress of PhD projects and quality of the supervision. All PhD students are registered in PhD TRACK, including their contract date, name of the project, etc. The PhD co-ordinator manages the system and has full access to all components. PhD students only have access to their individual data via a secured link on the CAPHRI website. They can fill out their Training and Supervision Plan digitally, can attach documents (e.g. articles, their preliminary thesis) to create a portfolio, and can make agreements with their supervisors. They also complete the Annual Questionnaire via the PhD TRACK system. Supervisors also log in via the CAPHRI website and only have access to the general data of their PhD students, and their annual progress reports. They cannot access the confidential section in which feedback is given by the PhD student on their supervision. At least twice a year, the promoter(s) should mark the progress of the project of each of their PhD students with a colour and evaluative comments (see step 6 above). The aim of this database is to support CAPHRI to signal problems in the project, the supervision or the performance of the PhD student in an early stage, and to provide adequate support by making agreements for improvements with the PhD student and/or the supervisor(s).

# Appendices / Annex 10

## Influx into CAPHRI Master Programmes

**Table 1: Total number of Master students per year since 2005 (full-time and part-time)**

	2005	2006	2007	2008	2009
Health Sciences Research Master, 2-years	8	5	14	12	8 <sup>(a)</sup>
MSc Public Health, total:	104	167	172	135	167
<b>Divided over the 5 specialisations:</b>					
• Health Education and Promotion	26	52	47	38	43
• Health Policy Economics & Management <sup>(b)</sup>	35	55	64	48	60
• Health Services Innovation <sup>(b)</sup>	11	18	25	21	33
• Work and Health	17	20	12	10	5
• Epidemiology	15	22	24	18	26
MSc Public Health for Professionals	10	10	10	10	10
MSc European Public Health	-	-	-	14	5
MSc Global Health	-	-	-	-	43

<sup>(a)</sup> CAPHRI aims at an influx of 20 research master students per year without changing the selection procedures

<sup>(b)</sup> As of 2010 the specialisations *Health Policy Economics & Management* and *Health Services Innovation* are combined into *Healthcare Policy, Innovation and Management (HPIM)*

**Table 2: Percentage of non-Dutch Master students (MSc Public Health, 2005-2008)**

	2005	2006	2007	2008
Total number of students, 5 tracks	104 (100%)	167 (100%)	172 (100%)	135 (100%)
EEA <sup>1</sup> (without the Netherlands)	9 (9%)	35 (21%)	25 (15%)	33 (24%)
Foreign (without EEA)	1 (1%)	11 (7%)	20 (12%)	15 (11%)

Rates of other Master programmes are comparable, except of the MSc Public Health for Professionals that has a 100% influx of non-Dutch students.

<sup>1</sup> EEA-countries (European Economic Area): all 27 EU countries, and Liechtenstein, Norway and Iceland.

# Appendices / Annex 11

## Health Sciences Research Master curriculum

### Year 1

Intervention research (6 ECTS)	Trial-based economic evaluation (5 ECTS)	Acquiring advanced professional skills (5 ECTS)
Observational research (6 ECTS)	Profile specific I (6 ECTS)	
Advanced statistical analysis techniques I (6 ECTS)	Health measurement (3 ECTS)	
Designing and conducting qualitative research (5 ECTS)	Basic ethics of health care research (2 ECTS)	
Implementation research (5 ECTS)	Profile specific II (6 ECTS)	
	Systematic literature reviews (3 ECTS)	
	Advanced ethics of health care research (2 ECTS)	1 Writing a grant and research proposal
		2 English writing and presenting course
		3 Advanced statistical analysis techniques II

### Year 2

Research project and thesis: Including (inter)national traineeship and writing a manuscript (60 ECTS)

<b>Profile specific modules</b>	<b>Clinical Epidemiology</b>	<b>Health Technology Assessment</b>	<b>Social Sciences</b>
Profile specific I	Applied epidemiology and genetic epidemiology	Cost effectiveness modelling methods	Intervention mapping
Profile specific II	Advanced diagnostic Research	Theoretical foundations and methodological challenges in HTA	Process evaluation

## **The PhD training programme for CAPHRI PhD students (1-5)**

**1**

## **The PhD Training Programme of CaRe (Netherlands School of Primary Care Research)**

CaRe, The Netherlands School of Primary Care Research, was established as a research school, and recognised by the Royal Netherlands Academy of Arts and Sciences, in 1995. The participating institutes are the School for Public Health and Primary Care (CAPHRI) of Maastricht University, the Centre for Evidence Based Practice (NCEBP) of the University Medical Centre Radboud in Nijmegen, the EMGO Institute for Health and Care Research (EMGO+) of the VU Medical Centre in Amsterdam, and the Netherlands Institute for Health Services Research (NIVEL) in Utrecht. The mission of CaRe is the development of scientific evidence-based knowledge in the field of primary health care and the implementation of this knowledge as evidence-based practice.

- B01** CaRe Introduction
- B02** CaRe Refresher Meeting
- B03** Annual CaRe Meeting
- B04** Writing Scientific English
- B05** Presenting in English
- B06** How to Review a Manuscript
- B07** Ethics of Health Care Research
- B08** Epidemiologic Research: Design and Interpretation
- B09** Introduction to SPSS
- B10** Principles of Epidemiologic Data Analysis
  
- E01** Clinimetrics: Assessing Measurement Properties of Health Measurement Instruments
- E02** Multilevel Analysis
- E03** Longitudinal Data Analysis
- E04** The Strategy of Data Analysis in Epidemiologic and Public Health Research
- E05** Advanced Diagnostic Research
- E06** Advanced Prognostic Research
- E07** Repeated Measurements in Clinical Studies
- E08** Advanced Topics in Decision Making in Medicine
- E09** Analysis of Correlated Data
- E10** Patient Safety Research: Theory and Practice
- E11** Multilevel Analysis of Longitudinal Data
  
- S01** International Comparison of Health Service Systems
- S02** Health Services: Research and Practice
- S03** Designing Theory and Evidence Based Intervention
- S04** Evidence and Theory Driven Intervention
- S05** Health Technology Assessment: Evaluation of the Efficiency of Medical Interventions
- S06** Health Education and Health Promotion: Theory and Practice
- S08** Qualitative Research Methods in Health Care. Introduction
- S09** Systematic Reviews and Meta-Analysis: Theory and Practice
- S11** Ethics of Care and Health
  
- C01** Theoretical Foundations and Methodological Challenges in Health Technology Assessment
- C02** Trial Based Economic Evaluation
- C03** Cost-Effectiveness in Modelling Methods
- C04** Process Evaluation
- C05** Designing and Conducting Qualitative Research

## Upcoming

### new courses/Masterclasses 2011:

- Writing and publishing a scientific article
- Conducting research with EPD-data
- Qualitative research in health care practice
- Gender medicine
- Masterclass research National Programme care for older people (NPO)
- Masterclass Mixed methods

### General remarks

- After successful completion of a course, a certificate and ECTS points are given. CaRe considers the study load to be achieved at least 11.4 ECTS.
- B01 is compulsory for (internal) CAPHRI PhD students, giving a broad introduction into the fields of CAPHRI.
- B02 is highly recommended for PhD students, as this day provides ample opportunities for PhD students of the same cohort to exchange experiences with colleagues across the country.
- B03 is recommended for PhD students as well as CAPHRI research staff, to network, and exchange research experiences.
- The codes of each course are referring to the formerly used profiles (Epidemiologic profile (E-profile), Social Science Profile (S-profile), Health CaRe Professionals Profile (P-profile). A new division is being made now, distinguishing general courses, epidemiological/quantitative courses, qualitative courses, and domain-specific courses.

## 2

### **Additional courses organised by CAPHRI (changing themes)**

- Lay-out of the thesis
- Career planning
- Debating skills
- Writing a grant research proposal

## 3

### **Generic PhD courses offered via UM Career Services (for free for UM staff)**

- Self-management for PhD trajectories (recommended for first year's)
- Career management for PhD students (recommended for last year's)
- Assertiveness
- Time management
- Project management & project control
- Project Start Up
- Project based work
- Writing about science
- Presentation skills (in Dutch and English)
- Communication skills
- Working effectively
- Annual appraisal and personal development plan
- Acquisition power for researchers (at the Centre for Contract Research)
- Dealing with diversity

## 4

### **PhD courses offered by the Faculty FHML (for free for PhD students)**

#### **Statistics**

- Statistics part 1: Introduction
- Statistics part 2: Regression analysis and SPSS

#### **Advanced statistics**

- Analysis of Longitudinal data
- Survival analysis
- LISREL
- Meta Analysis

#### **Research methods**

- Qualitative research methods

#### **Communication in scientific English**

- Writing skills English, part 1
- Writing skills English, part 2
- Presentations in English

#### **Biomedical skills**

- Laboratory animal sciences
- Radiation hygiene 5b
- Safe microbiological techniques
- Immuneassays
- Cell interactions

## 5

### **Professionalisation of teachers, offered by the Department of Education Development and Education Research, FHML**

The FHML offers courses via the Department of Education Development and Education Research, for research and teaching staff of the FHML and PhD students, for the execution of educational activities. Courses followed are registered in the teaching dossier of the Faculty. All trainings are offered in Dutch and English. The following courses are offered:

### **Short tracks**

#### **Aimed at educational development**

- Course design and constructing problems
- General introduction to student assessment and test construction
- Psychometrics and standard setting (quality assurance)
- Constructing test items
- Constructing and conducting oral examinations
- Assessment of written papers (thesis)
- The construction of test stations
- Interactive lecturing
- Alternative methods within Problem-Based Learning (PBL)

#### **Aimed at teaching and tutoring**

- Introduction to Problem-Based Learning and the role of the tutor (compulsory for all teachers)
- Acting techniques for lectures and presenting
- Guiding Thesis circles

#### **Aimed at teaching and tutoring in the medical curriculum in particular**

- Consultation and Reflection (CORE) workshops
- Cluster Coaches in year 3
- Conducting admission interviews (AKO)
- Meetings for (new) mentors in year 1 and 5
- Assessing professional behaviour by tutors
- Basic Training in Clinical Teaching (BCT)
- Basic Training in Workplace Assessment (BTT)
- 360 degree feedback (workplace assessment)
- Portfolio (workplace assessment)
- Mini Clinical Evaluation Exercise

#### **Aimed at evaluating Education**

- Internal Quality Improvement: a prerequisite for educational quality

### **Longitudinal tracks**

- BKO- track (Basic Teaching Qualification)
- Sessions for BKO coaches
- MHPE courses (Master of Health Professions Education)

# Appendices / Annex 13

## CAPHRI PhD graduates and their current position/employer

Name	Graduation date	Thesis title	Promoter(s)
Ayuku, David Otundo	04-11-2004	Street Children: their social, physical and mental health	M.W. de Vries (G; PEN) H.N.K. Mengech (Moi University-Eldoret)
Bortel, Paulus M.A.A. van	26-11-2004	<i>Het geweld van laatste woorden. Filosofie in de marge van de gezondheidsethiek</i>	G. Widdershoven (GW; GEW) R. Visker (KU Leuven)
Brants, Luc A.P.M.	18-06-2004	<i>Leiding moeten zij hebben; een geschiedenis van de sociaal pedagogische zorg voor mensen met een verstandelijke handicap in Nederland tussen 1900 en 1945</i>	A.T.G. van Gennep (GW; BEOZ)
Bruynesteyn, Karin	17-06-2004	Scoring methods for joint damage on plain radiographs in rheumatoid arthritis	D.M.F.M. van der Heijde (G; IG) J.M.J.P. van der Linden (G; IG)
Buntinx, Willy H.E.	22-12-2004	<i>Een continue zorg. Een studie naar persoonswisselingen in residentiele instellingen voor mensen met verstandelijke beperkingen.</i>	A.Th.G. van Gennep (GW; BEOZ)
Buur, Daniel	23-06-2004	Accessibility and utilisation of health services in Ghana	J. van der Zee (GW; ZW-MS) P.P. Groenewegen (UU)
Chorus, Astrid M.J.	07-05-2004	Rheumatic patients at work	J.M.J.P. van der Linden (G; IG)
Double graduation Leendert van Dam / Mw. Mirjam H.P. Roemer	09-09-2004	<i>Verstaanbaar maken; communicatie met mensen met een zeer ernstige verstandelijke (meervoudige) handicap: inventarisatie en overdracht van ervaringskennis</i>	A.Th.G. van Gennep (GW; BEOZ)
Double graduation T.C.A.G. Rasenberg / J.H.R. Weijenberg	30-01-2004	<i>Groepsteams in de residentiele jeugdhulpverlening; Een onderzoek naar de verbetering van het teamfunctioneren na een integratieve teamtraining</i>	F.J.N. Nijhuis (GW; BEOZ) A.Th.G. van Gennep (GW; BEOZ)
Elabassi, M.A.Y.	22-01-2004	Public health sector reform: the implementation of federal decentralization in Sudan and its impact upon the sector of public health	J.A.M. Maarse (GW; BEOZ)
Frederiks, Brenda J.M.	16-09-2004	<i>De rechtspositie van mensen met een verstandelijke handicap</i>	F.C.B. van Wijmen (GW; ZW-GZR)

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Ch. Kaplan (GEN; PEN) J. Diederiks (GEN; MS) W. Odero (Moi University-Eldoret)	yes	teaching/care	Lecturer Dept. Behavioural sciences, Moi University, Kenya, and clinical psychologist diverse hospitals Kenya
-	yes	research/teaching	Lector Philosophical anthropology and ethics, Lessius Hogeschool, and teacher health ethics University Antwerpen, Belgium
-	yes	research	Project leader diversity policy in child care and own research office
-	yes	research	MAPI values, international consultancy in health en research
-	yes	research/teaching	UM/CAPHRI, Dept. Of Health Organization, Policy and Economics
-	yes	research	Provost of the College of Arts and Social Sciences, Kwame Nkrumah University of Science and Technology (KNUST), Ghana; since 2010 Vice Chancellor of the Valley View University (VVU).
-	yes	research	TNO
J. Stolk (Vrije Universiteit Amsterdam)	yes	research/teaching/beleid	L. van Dam: freelance researcher, teacher and policy Noorderhaven, M. Roemer: ESDEGE Reyersdaal and Heliomare
-	yes	research/teaching/care	Both: diverse functions in youth assistance
V. Moharir (Institute of Social Studies, Zoetermeer)	yes	researcher	Sudan Government
J.C.J. Dute (GW; ZW-GZR)	yes	research/teaching	Assistant professor Public and Occupational Health/ Emgo Institute, Health Law

## Appendices / Annex 13

Name	Graduation date	Thesis title	Promoter(s)
Hastenberg-v. Dongen, Katinka A.J.	11-10-2004	Translating Pain	H. Huijjer Abu-Saad (GW; ZW-VW) M.P.F. Berger (GW; MES)
Janssen, Nathalie	17-06-2004	The natural course of fatigue in a working population	F.J.N. Nijhuis (GW; BEOZ)
Joling, Cathelijne	19-11-2004	Optimal intervention in the sickness absence process to prevent disability	W.N.J. Groot (GW; BEOZ)
Kardol, Martinus J.M.	11-04-2004	<i>Zorg voor zelfstandigheid</i>	G.A.M. Widdershoven (GW; ZW-GEW) F.C.B. van Wijmen (GW; ZW-GZR)
Needham, Ian	23-12-2004	A nursing intervention to handle patient aggression: The effectiveness of a training course in the management of aggression	H. Philipsen (GW) T. Dassen (EXTERN; Berlin)
Panis, Lambert J.G.G.	15-04-2004	To stay or not to stay: the assessment of inappropriate hospital stay	M.H. Prins (G; KLIN EPID) P. Pop (G; IG)
Reubsæet, Astrid	29-09-2004	Development and evaluation of a school-based organ donation education programme	H.W. van den Borne (GW; BEOZ) ir. J. Brug (GW; GVO) J.P. van Hooff (G; IG)
Schonberger, H.J.A.M.	19-03-2004	Towards (primary) prevention of childhood asthma in primary care	C.P. van Schayck (G; HAG) J.A. Knottnerus (G; HAG) C. van Weel (KUN)
Schuitemaker, G.E.	12-02-2004	The Mierlo project. Risk factors for cardiovascular diseases in a primary care population: their interrelationships, clinical outcomes and responses to intervention	G.J. Dinant (G; HAG) A.P.W.M. Appels (G; DMKEP)
Smits, Marie-José	13-02-2004	<i>Zorgen voor een draaglijk bestaan; morele ervaringen van verpleegkundigen</i>	G.A.M. Widdershoven (GW; ZW-GEW) R. Vos (GW; ZW-GEW)
Spigt, Mark	12-03-2004	Drinking more water as a primary care preventive intervention; the effects on elderly male bladder function, headache and general health	J.A. Knottnerus (G; HAG) C.P. van Schayck (G; HAG) Ph.E. van Kerrebroeck (G; UR)
Spoorenberg, J.P.L.	06-02-2004	Outcome and disease activity in ankylosing spondylitis. An international study.	D.M.F.M. van der Heijde (G; IG) J.M.J.P. van der Linden (G; IG)
Verbunt, J.A.M.C.F.	16-01-2004	Disuse and physical deconditioning in chronic low Back pain	J.A. Knottnerus (G; HAG)
Verstappen, Wim H.J.M.	17-09-2004	Towards optimal Test Ordering in Primary Care	R.P.T.M. Grol (G; HAG) J.M. Grimshaw (University of Ottawa, Can)

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
J.P.H. Hamers (GW; ZW-VW)	yes	Research/teaching	HSZuyd
-	yes	research	Postdoc UM/CAPHRI, Dept. Epidemiology
P. Janssen (GW; BEOZ)	yes	research	TNO
N. Sijben	yes	care	general director care organisations for elderly
R.J.G. Halfens (GW; ZW-VW)	yes	research/teaching/care	research/teaching/care
F.W.S.M. Verheggen (AZM; Stafdir. patientenzorg)	yes	care	-
-	yes	research	Postdoc UM/CAPHRI, Dept. Health Promotion
-	yes	care; now retired	-
J.W.J. van Wersch (GEN; HAG)	yes	care	Medical doctor, pharmacologist, founder Orthomolecular Institute
A.M. Meershoek (GW; ZW-GEW)	yes	research/teaching	Policy adviser ActiZ en CCZorgadviseurs, now owner ZorgEssentie (advisory, training and research bureau)
-	yes	research/teaching	Researcher UM/CAPHRI, Dept. General Practice
-	yes	care	<i>Rheumatologist Friese reumatologen maatschap</i>
G. van der Heijden (UU); J.W.S. Vlaeyen (GEN; DMKEP)	yes	care/research/teaching	Rehabilitation doctor Hoensbroek and Academic Hospital Maastricht
-	yes		UMC Nijmegen

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Name	Graduation date	Thesis title	Promoter(s)
Wessels, Roelof † (2007)	24-03-2004	Ask the User; user perspective in the assessment of assistive technology	W.J.A. van den Heuvel (GW; CAPHRI)
Algera, Marco	29-04-2005	All you need is ... home care. Matches between home care needed, indicated and delivered: a study among chronic patients	J. van der Zee (GW; ZW / MS)
Ast, Johanna F. van	08-09-2005	Diagnostic Reference Frames for Epileptic Seizures	ir. A. Hasman (G; MI) W.O. Renier (RUN)
Bastiaenen-Heuts, Caroline H.G.	14-12-2005	Pregnancy-related pelvic girdle pain	R.A. de Bie (GW; EPI) ir. P. van den Brandt (GW; EPI) G.G.M. Essed (G; GO)
Chavannes, Niels H.	06-12-2005	Tracking and Treating COPD in Primary Care: An Integrated Approach to Diagnosis and Therapy	C.P. van Schayck (G; CAPHRI / HAG) E.F.M. Wouters (G; PUL)
Dam, Hendrik A. van Dam †	23-09-2005	Studies and reflections on type 2 diabetes care in general practice. Perspectives of patients and professionals	H.F.J.M. Crebolder (G; HAG) H.W. v.d. Borne (GW: GvO)
Deurenberg, Ing. Ruud H.C.A.	29-09-2005	The molecular determinants of methicillin-resistance and virulence of Staphylococcus aureus	C.A. Bruggeman (G; MM)
Dolders, Maria G.T.	30-06-2005	Bias in patient and population preferences	W.N.J. Groot (GW; BEOZ)
Duimel-Peeters, Inge G.P.	15-12-2005	Massage to prevent pressure ulcers: Knowledge, beliefs practice and effectiveness	M.P.F. Berger (GW; MES) L.H.E.H. Snoeckx (-)
Feuchtinger, Johanna E.M.	29-09-2005	Pressure ulcer prevention in cardiac surgery patients	R.A. de Bie (GW; EPI) Th. Dassen (Humboldt University Berlin, D)
Gool, Coen H. van	10-06-2005	The course of chronic disease, depression and health behaviour in longitudinal perspective	J.Th.M. van Eijk (G; ZW / MS) G.I.J.M. Kempen (GW; ZW / MS)
Harting, Janneke	03-03-2005	Individual lifestyle advice: development, implementation, and evaluation within the Hartslag Limburg cardiovascular prevention project	N.K. de Vries (GW; GvO)
Hobma, Sjoerd	24-06-2005	Directed self-learning as approach to Continuing Professional Development	R.P.T.M. Grol (G; HAG) C.P.M. van der Vleuten (G; O&O)
Hoeijmakers, Maria J.A.	26-05-2005	Local Health Policy Development Processes. Health promotion and network perspectives on local health policy-making in the Netherlands	N.K. de Vries (GW; GVO) E. de Leeuw (Deakin Univ.)

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
L. de Witte (iRv Hoensbroek)	deceased 2007	-	-
A. Francke (Nivel)	yes	policy	Manager quality in home care, Utrecht, Utrecht
ir. J.L. Talmon (G; MI)	yes	research	Inter-university cardiological institute Nederland
-	yes	research/teaching	UD UM/CAPHRI, Dept. Epidemiology
J.W.M. Muris (G; HAG)	yes	research/teaching	UHD Dept. General Practice, LUMC Leiden
F.G. van der Horst (G; HAG)	yes	care	was general practitioner; deceased
E.E. Stobberingh (G; MM) C. Vink (G; MM)	yes	research	Postdoc Dept. Medical Microbiology, Academic Hospital Maastricht
A. Ament (GW; BEOZ)	yes	policy	Policy adviser Verenso - specialist elderly care
R.J.G. Halfens (GW; ZW / VW)	yes	research	Researcher UM/CAPHRI, Dept. General Practice
-	yes	care/teaching/research	Head Nursing Dept, Berlin
B.W.J.H. Penninx (VUA)	yes	research	RIVM, Bilthoven
P. van Assema (GW; GVO)	yes	research	Postdoc MUMC Amsterdam, Dept. Social Medicine
P. Ram (G; HAG)	yes	care/research	General practitioner, CZ, in combination with UM
P. Kenis (UvT)	yes	research	Municipal Health Authorities GGD-ZL en Public Health Consultant at ETC-Tangram , Nijmegen

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Name	Graduation date	Thesis title	Promoter(s)
Hopstaken, Rogier M.	09-09-2005	Lower respiratory tract infections in general practice	G.J. Dinant (G; HAG)
Kilkens, Olga J.E.	01-04-2005	Manual Wheelchair Skill Performance of Persons with Spinal Cord Injuries	W.J.A. van den Heuvel (G / GW; CAPHRI)
Kool, Jan Pieter	13-12-2005	Physiotherapy and sick leave in patients with chronic low back pain	R.A. de Bie (GW; EPI) P. van den Brandt (GW; EPI)
Koster, Ir. Annemarie	22-12-2005	Socioeconomic health differences in old age: Unravelling the role of biomedical, behavioural, and psychosocial factors	J.Th.M. van Eijk (G; ZW / MS) G.I.J. Kempen (GW; ZW / MS)
Kümpers, Susanne N.S.	19-05-2005	Steering integrated care in England and the Netherlands: The case of dementia care. A neo-institutionalist comparative study	J.A.M. Maarse (GW; BEOZ)
Molleman, Gerard R.M.	12-05-2005	PREFFI 2.0: Health Promotion Effect Management Instrument. Development, validity, reliability and usability	C.M. Hosman (GW; GvO) G.J. Kok (P; EPS)
Mommers, Monique A.H.	14-04-2005	Childhood Respiratory Health in the Dutch-German borderland	C.P. van Schayck (G; HAG; CAPHRI)
Moukhyer, Mohamed E.E.	18-02-2005	Health profile of Sudanese adolescents (Gezondheidsprofiel van Soedanese adolescenten)	J.Th.M. van Eijk (G; ZW / MS) N.K. de Vries (GW; GVO)
Muijrsers, Paul E.M.	01-07-2005	Prescribing in Primary Care. Pharmacotherapy in primary care and the cooperation between general practitioners and community pharmacists	J.A. Knotterus (G; HAG) R.P.T. Grol (G; HAG)
Nelissen, Robert M.A.	28-10-2005	Guided by reason, struck by emotion. Integrating motivational and expectancy - Value Accounts of Behavior	N.K. de Vries (GW; GvO)
Nys, Sita S.M.	09-09-2005	Antibiotic Resistance and the Commensal Flora	C.A. Bruggeman (G; MM)
Panday, Saadhna	14-04-2005	Smoking prevention and cessation among adolescents in South Africa	H. de Vries (GW; GVO) S.P. Reddy (South African Med.Research, Tygerberg)
Raad, John de	16-09-2005	<i>Over keuringen. Onderzoek naar de kwaliteit van keuringen voor militair personeel van de Koninklijke Landmacht</i>	F.J.N. Nijhuis (GW; BEOZ) J.H.B.M. Willems, UvA

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
E. Stobberingh (G; MM) P. Nelemans (G; EPI) J.W.M. Muris (G; HAG)	yes	care	General practioner and co-ordinator gp care, Eindhoven
L.H.V. van der Woude (VUA) A. Dallmeijer (VUA) M.W.M. Post (iRv Hoensbroek)	yes	research	Koelplan, Echt-Susteren
-	yes	research/teaching	Research leader University Winterthur, Switzerland
H. Bosma (GW; ZW / MS) B.W.J.H. Penninx (VUA)	yes	research	Postdoc USA National Institute on Aging
I. Mur (GW; BEOZ) A. van Raak (GW; BEOZ)	yes	research	Researcher social sciences Berlin, Germany
-	yes	research	GGD Nijmegen
G.M.H. Swaen (G; EPI) M. Weishoff-Houben (RWTH Aachen)	yes	research	Dept of Epidemiology
-	yes	policy	Sudan
R. Janknegt	yes	policy	CZ health insurer; retired now
A.J. Dijker (GW; GvO)	yes	research	University of Tilburg
E.E. Stobberingh (G; MM)	yes	research	Postdoc Medical Microbiology, now staff member Medical Microbiology, hospital Hasselt, Germany
E. Bergström (Emea University, Sw.)	yes	research/teaching	Human Sciences Research Council, South Africa
-	yes	care	Roayl land forces

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Name	Graduation date	Thesis title	Promoter(s)
Rhijn, L.W. van	09-09-2005	Dynamics and relationships in idiopathic scoliosis	R.G.T. Geesink (G; ORT)
Schellings, Adolf G.L.	07-10-2005	Pre-randomization in study designs acceptability and applicability	F. Sturmans (G; EPI) J.A. Knottnerus (G; HAG)
Sieben, Judith M.	11-11-2005	Pain-related fear in acute low back pain; towards understanding and prevention of chronicity	J.A. Knottnerus (G; HAG) A. Arntz (G/GW; DMKEP)
Soeting, Monica F.	28-04-2005	<i>Tussen wet en werkelijkheid; euthanasie in het licht van de roman van Willem Jan Otten en de filosofie van Maurice Merleau-Ponty</i>	G.A.M. Widdershoven (GW; ZW/GEW) W. Kusters (CW; Letteren en Kunst)
Uden, Cornelis J.T. van	12-05-2005	Studies on general practice out-of-hours care	H.F.J.M. Crebolder (G; HAG) C.P. van Schayck (G; HAG)
Valk, ir. Rikkert van der	21-12-2005	Glaucoma medication; evidence from clinical trials and effects in practice	F. Hendrikse (G; OHK) M.H. Prins (G; EPI)
Wagena, Edwin J.	13-05-2005	Cigarette Smoking, COPD and Psychological Problems	C.P. van Schayck (G; HAG) E.F.M. Wouters (G; PUL)
Wanders, Astrid J.B.	22-04-2005	Outcome assessment in Ankylosing Spondylitis in focus	D.M.F.M. van der Heijde (G; IG) Sj. van der Linde (G; IG)
Werrij, Marieke Q.	24-11-2005	Weighty Thoughts; a cognitive approach to the treatment of obesity	A.T.M. Jansen (P; EPS) H.J. Hospers (P; EPS) A.A.N. Mulkens (P; EPS)
Willingdael-Reesink, Edith M.	08-06-2005	The care for peripheral arterial disease. A multidisciplinary approach.	M.H. Prins (G; EPI) H.R. Büller (AMC)
Winkens, Bjorn	23-11-2005	Optimal design and analysis of clinical trials with repeated measures	M. Berger (GW; MES)
Bloemen-Vrencken, Jos H.A.	13-10-2006	Health problems after spinal cord injury rehabilitation: Who cares ?	Heuvel, W.J.A. van den
Coumans, Anna M.	01-20-2006	Chronic Heroin Users	Knibbe, R.A. H. v.d. Mheen( Rotterdam)
Dambros, Miriam	23-2-2006	Novel insights into the pathophysiology and treatment of the Overactive Bladder Syndrome	Kerrebroeck, P.E.V.A. van (M; UR) P.C.R., Palma ( ; )

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
B.E.E.M.J. Veraart (G; DER)	yes	research/teaching	Professor Rehabilitation, Academic Hospital Maastricht
G. ter Riet ( UvA)	yes	research	Health care inspector
J.W.S. Vlaeyen (G; DMKEP) P.J.M. Portegijs (G; HAG)	yes	research/teaching	Assistant professor Anatomy, UM
-	yes	policy	editor in chief Biografie Bulletin
R.A.G. Winkens (G; HAG) G. Wesseling (G; PUL)	yes	research/policy	Dept. Physiotherapy, Radboud Medical Centre, Nijmegen, and Maastricht
J.S.A.G. Schouten (G; EPI / OHK) C.A.B. Webers (G; OHK)	yes	care	-
-	yes	research	Clinical trial manager neurosciences, Solvay Pharmaceuticals, Weesp
R.B.M. Landewé (G; IG)	yes	care	Psychiatrist
-	yes	research	Researcher UM, Psychology
J.A.W. Reijink M.E.L. Bartelink (UU)	yes	care	To be trained as surgeon, Sittard
H. Schouten (G; MES) G. van Breukelen (GW; MES)	yes	research/teaching	UD UM/CAPHRI, Dept. Methodology and Statistics
Witte, L.P. de (S; ZW) Post, M.W.M. (FYS)	yes	care	Rehabilitation Centre Hoensbroek and Irv
-	yes	research	Researcher Centre for Statistics Heerlen
Koeveringe, G.A. van (M; UR)	yes	care	Dept of Surgery and Dept of Urogynaecologie 2 universities, Brasil

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Name	Graduation date	Thesis title	Promoter(s)
Friesema, I.H.M.	22-9-2006	Alcohol and Cardiovascular Disease: a longitudinal study on impact of intake measurement and health status	Knottnerus, J.A.(M; HAG) Drop, M.J.
Geraets, Jacques	9-3-2006	The clinical effectiveness and cost-effectiveness of a behavioral Graded Exercise Therapy programme for patients with chronic shoulder complaints in Primary Care	Heuvel, W.J.A. van den (M; REV / CAPHRI) Dinant, G.J. (M; HAG)
Heuft-Dorenbosch, Liesbeth L.J.	6-10-2006	From inflammatory back pain to ankylosing spondylitis	Heijde, D.M.F.M. van der ( M; IG) Linden, J.M.J.P. van der (M; IG)
Heuts, Peter H.T.G.	10-2-2006	Osteoarthritis: a rehabilitative approach in general practice	van Schayck, C.P. de Bie, R.A., C.P. van Weel (UMC St. Radboud)
Huwer, Roos M.E.	29-9-2006	Papa Don't Preach	Vries, H. de, Engels, R.C.M.E. (RUN)
James, Shamagonam	17-3-2006	The evaluation of HIV and AIDS Interventions in Secondary Schools in South Africa: recommendations for systematic programme development	Borne, H.W. van den (S; GvO) Reddy, S.P. ( MRC South Africa)
Kaper, Janneke	6-10-2006	Smoking cessation treatment and its reimbursement: The costs and effects	Schayck, C.P. van Severens, J.L.
Kraag, Gerda C.	7-9-2006	Learn Young, Learn Fair - development and evaluation of a stress management programme for fifth and sixth graders	Abu Saad - Huijjer, H. Kok, G.J. (P; EPS)
Meeuwissen, Louise E.M.M.	20-9-2006	<i>Het verbeteren van sexuele en reproductieve gezondheidszorg voor kansarme tienermeiden</i>	Knottnerus, J.A. (M; HAG)
Schoot, Christina M.	20-10-2006	Client-Centred Care; balancing between perspectives of clients and nurses in home care	Meulen, R.H.J. ter (M; ZW / GEW)
Segaar, Dewi	20-12-2006	Adoption and implementation of smoking cessation support in health care	Vries, H. de (S; GvO)
Sifunda, Sibusiso	17-3-2006	Ubudoda Abukhulelwa. The development and testing of a peer-led STI, HIV and AIDS prevention intervention for male prison inmates in South Africa	Borne, H.W. van den (S; GvO) Reddy, S.P. (MRC South Africa)

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Zwietering, V.A.(M; HAG), Lemmens, P.H.H.M.	yes	research	Epidemiologist infectious diseases RIVM
Goossens, M.E.J.B.(S; DMKEP) Heijden, G.J.M.G. (van der Juliuscentrum Utrecht)	yes	research/teaching	Hogeschool Zuyd
Landewe, R.B.M.(M; IG)	yes	care	Rheumatologist
	yes	research	Professor Rehabilitation, Amsterdam
	yes	research	Senior research consultant TNS NIPO
Ruiter, R.A.C.(FDP; EPS)	yes	research	Medical Research Council in the Health Promotion R&D department, South Africa
Wagena, A.J. (Zwolle)	yes	policy	CZ – health insurance, function prevention
-	yes	research	Researcher UM, Dept. Psychology
Gorter, A.C. (Managua, Nicaragua)	yes	research	NIVEL, Utrecht
Witte, L.P. de (S/ZW) Proot, I.M. (ZW/GEW)	yes	teaching	Senior lecturer Advanced Nursing Practice, after that co-ordinator 'Client-Centred Care' Expertisecentre Autonomie & participation
Willemsen, M. (Den Haag) Bolman, C. (OUN)	yes	research/policy	Stivoro
Ruiter, R.A.C. (FDP; EPS)	yes	research	National health promotion R&D, Medical Research Council, South Africa

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Name	Graduation date	Thesis title	Promoter(s)
Smeets, Robert E.M.	8-12-2006	Active rehabilitation for chronic low back pain: Cognitive-behavioural, physical, or both ?	Knottnerus, J.A. Vlaeyen, J.W.S.( M; MP)
Smeets, Tamara	22-6-2006	Towards a healthy lifestyle; the development and evaluation of a computer tailored lifestyle intervention	Vries, H. de(S; GvO) Brug, J. (EUR)
Smits, Kim M.	5-10-2006	Pharmacogenetic studies in depression: a focus on the serotonin transporter gene	Prins, M.H. (M; EPI)
Steuten, Lotte M.G.	23-2-2006	Evaluation of disease management programmes for chronically ill	Spreeuwenberg, C. Merode, G.G. van (S; FB GW / BEOZ)
Vries, Marjolein P. de	17-2-2006	Asthma control in general practice. The effect of self-management and allergen avoidance	van Schayck, C.P. (HAG)
Wetzels, Gwendola E.C.	30-11-2006	Patient Compliance in Hypertension; from Measurement to Improvement	Prins, M.H. (M; EPI)
Bendermacher, Bianca L.W.	1-6-2007	Peripheral arterial disease; screening, diagnosis, and conservative treatment	Prins, M.H.
Biesma, Regien G.	25-4-2007	Competences in public health	Groot, W.N.J. Merode G.G. van.
Cignacco-Müller, Eva L.C.	5-12-2007	Pain in neonates: a nursing perspective	Hamers, J.P.H. Zimmermann, L.J.I.
Cingel, Eltjo H.R. van	12-10-2007	Dynamic joint stability in athletes. The value of isokinetic dynamometry	Kuipers, H. Bie, R.A. de
Dorn, Tina	25-4-2007	Health impact of the Volendam fire disaster	Zee, J. van der
Duijts, Saskia F.A.	7-11-2007	Prediction and early intervention in employees at risk for sickness absence due to psychosocial health complaints	Brandt, P.A. van den
Eijkelberg, Irmgard M-J.G.	6-9-2007	Key factors of change processes in shared care. Viewpoints of managers, care providers and patients	Spreeuwenberg, C. Wolffenbuttel, B.H.R.
Fransen, Gerarda A.J.	18-10-2007	Dyspepsia in primary care: patient expectations, symptoms and treatment adherence	Knottnerus, J.A.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Hidding, A. (Atrium MC Heerlen)	yes	research/teaching	Professor UM/CAPHRI Rehabilitation
-	yes	teaching	Lecturer Fontys Hogescholen
Smits, L.J.M. (M; EPI) Schouten, J.S.A.G. (M; EPI)	yes	research	MUMC+
Vrijhoef H.J.M. (S; ZW)	yes	research	Researcher, University Twente
Muris, J.W.M. (M; HAG) Thoonen, B.P.A. (UMCN)	yes	care	General practitioner, Australia
Nelemans, P.J. (M; EPI) Schouten, J.S.A.G. (M; EPI)	yes	industry/research	Clinical research specialist Medtronic, Maastricht
Tejjink, J. Bartelink, M.	yes	care	Trained to become surgeon
-	yes	research/teaching	Lecturer Royal college of surgeons, Ireland
Lingen, R.A. van M. Nelle	yes	care/research	Institute of Nursing Science, Medical Faculty, University of Basel, Switzerland
Kleinrensink, G.J.	yes	policy	Director NOC/ NSF
IJzermans, C.J	yes	research	Epidemiologist
Kant, Y, Swaen, G.M.H.	yes	research	Reseacher Epidemiology EMGO, Amsterdam
Mur - Veeman, I.M.	yes	policy	Huis van de zorg', advisory bureau for clients and informal carers
Muris, J.W.M. Mesters, E.P.E.	yes	research/beleid	Programme co-ordinator Dept. Health Promotion and Epidemiology, GGD Regio Nijmegen

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Gijsbers, Barbara	21-11-2007	Promotion of exclusive breastfeeding for six months in asthmatic families	Schayck, C.P. van Knottnerus, J.A.
Habbani, Kahlid S.A.	12-9-2007	Can community care financing contribute to a better health in Sudan?	Groot, W.N.J.
Heijckmann, A. Caroline	19-12-2007	Bone mass and fractures in patients at risk for secondary osteoporosis	Nieuwenhuijzen Kruseman, A.C. Geusens, P., Wolffenbuttel, B.
Hooren, Robert H.L.C. van	5-12-2007	What is eating them? Moral consideration in the management of obesity in the case of Prader-Willi syndrome	Widdershoven, G.A.M. Curfs, L.M.G. Borne, H.W. van den
Hoving, Ciska F.	7-12-2007	The feasibility of a smoking cessation computer tailored expert system in Dutch general practice and community pharmacy setting	Vries, H. de
Ibnouf, Adil H.	4-12-2007	Factors affecting the utilization of primary health care services by Sudanese women and children in Khartoum State-Sudan	Maarse, J.A.M. Borne, H.W. van den
Jansen, ir. Maria W.J.	28-6-2007	Mind the gap. Collaboration between practice, Policy and research in local public health	Vries, N.K. de Kok, G.J. Oers, J. van
Jong, Nynke de	30-5-2007	Fatigue in breast cancer patients receiving adjuvant chemotherapy	Schouten, H.C. Abu Saad - Huijjer, H.
Kuiper, Sandra	25-1-2007	Family History of Asthma; prognostic impact in infants and cost-effectiveness of primary prevention	Schayck, C.P. van Knottnerus, J.A.
Kummeling, Ischa	8-3-2007	Infant atopic manifestations	Brandt, P.A. van den
Kuntsche, Emmanuel N.	8-11-2007	Tell me ... Why do you drink ? A study of drinking motives in adolescence	Knibbe, R.A. Engels, R.
Lensen, Antoine F.	7-9-2007	Aspects of Physiotherapy in the peri-operative management of total knee arthroplasty patients	Bie, R.A. de Brandt, P.A. van den Geesink, R.G.T.
Linssen, Catharina F.M.	22-11-2007	Diagnostic value of bronchoalveolar lavage in infectious disorders	Bruggeman, C.A.M.V.A. Drent. M.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Mesters, E.P.E.	yes	care/research	Maxima Medisch Centrum locatie Veldhoven , GZ-psycholoog en kinder- & jeugdpsycholoog bij medische psychologie
-	yes	policy	Director of Health Economics in the Federal Ministry of Health, Sudan
Huijberts, M.S.P.	yes	care	Internist-endocrinologist hospital Bernhoven, Veghel and Oss
	yes	care	Psychologist Meditta, general practice Geleen
Mudde, A.N.	yes	research/teaching	UD UM/CAPHRI, Dept. Health Promotion
-	yes	policy	Sudan, Ministry of Health
-	yes	policy/research	Programme leader Academic Workplace Public Health, GGD Z-Limburg
Courtens, A.M.	yes	research/teaching	UD/CAPHRI, Dept. Nursing and Care, expert E-learning
Dompeling, E. Muris, J.W.M	yes	policy	Project leader care pathway asthma/COPD
Thijs, C.T.M. Dagnelie, P.C.	yes	research	Imperial College, London
Gmel, G.	yes	research	Swiss Institute for the Prevention of Alcohol and Drug Problems
-	yes	care/research/teaching	Physiotherapist/researcher Academic Hospital Maastricht, lecturer HS Zuyd
Jacobs, J.A.	yes	research/teaching	Staff member Dept. Medical Microbiology, Academic Hospital Maastricht

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Martens, Jody D.	7-11-2007	Rational Prescribing Behaviour in General Practice	Severens, J.L.
Mistiaen, Patriek J.M.L.	25-10-2007	Hospital discharge: problems and interventions	Zee, J. van der
Neyens, Jacques C.L.	14-6-2007	Fall prevention in psychogeriatric nursing home residents	Heuvel, W.J.A. van den Schols, J.M.G.A.
Niessen, Theodorus J.H.	30-11-2007	Emerging epistemologies; making sense of teaching practice	Widdershoven, G.A.M. Vleuten, C.P.M. van der
Nieuwenhoven, Christina A. van	27-4-2007	Prevention of Ventilator Associated Pneumonia: Making a Difference ?!	Ramsay, G. Bruggeman, C.A.M.V.A. Bonten, M.J.M.
Ronckers, Emma T.	11-1-2007	Economic Evaluation of prevention programs for cardiovascular diseases	Groot, W.N.J.
Wolfs, Claire A.G.	6-12-2007	An integrated approach to dementia: a clinical and economic evaluation	Verhey, F.R.J. Severens, J.L.
Zwakhalen, Sandra M.G.	12-12-2007	Pain assessment in nursing home residents with dementia	Hamers, J.P.H. Berger, M.P.F.
Abderhalden, Christoph	6-3-2008	The systematic assessment of the short-term risk for patient violence on acute psychiatric wards	Philipsen, H. Dassen, T.
Adam, Ishag	06-11-2008	Malaria and Anaemie. The impact on maternal and perinatal outcomes.	Prins, M.H. Elbashir, M.I.
Asselt, Antoinette D.I. van	31-10-2008	Economic aspects of treatment for Borderline Personality Disorder; theory versus practice	Severens, J.L. Arntz, A.R.
Ayo-Yusuf, Olekan Abdulwahab	05-12-2008	-	van den Borne, H.W., Reddy, S.P.
Bertens, Marie G.B.C.	13-6-2008	UMA TORI; development and evaluation of an STI/HIV-prevention intervention for women of Afro-Surinamese and Dutch Antillean descent	Schaalma, H.P. Borne, H.W. van den
Bilsen, Pascale M.A. van	31-1-2008	Care for the elderly; an exploration of perceived needs, demands and service use	Hamers, J.P.H. Groot, W.N.J. Spreeuwenberg, C.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Winkens, R.A.G. Weijden, G.D.E.M. van der	yes	research	MUMC
Francke, A.L.	yes	research	Nivel, Utrecht
Witte, L. de Haastregt, J.C.M. van	yes	care/research	Physiotherapist nursing home and postdoc LPZ (UM)
Abma, T.A.	yes	teaching	Fontys Hogeschool Eindhoven
Tiel, F.H. van	yes	care	Pastic surgeon
Ament, A.J.H.A.	yes	care	School psychologist
Dirksen, C.	yes	research	MUMC, Neuropsychology
-	yes	research	Postdoc UM/CAPHRI, Dept. Nursing and Care
Halfens, R.J.G.	yes	care/research	Head Dept. Psychiatry, Switzerland
-	yes	care/research/teaching	Professor Gynaecology, Khartoum
Dirksen, C.D.	yes	research	MUMC Kemta
-	yes	research/teaching	Senior lecturer Department of Community Dentistry of the University of Pretoria, South Africa
Bartholomew, L.K. Krumeich, J.S.M	yes	research	Lecturer and assistant professor Athena Institute, Faculty of Earth and Life Science, VU University of Amsterdam
-	yes	policy/research	First postdoc UM/CAPHRI, Dept. Care and Nursing, since June 2010 staff member Adelante kenniscentrum

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Name	Graduation date	Thesis title	Promoter(s)
Boessen, Alexandra C.M.	14-11-2008	The Politics of European Union Health Policy-making	Maarse, H.
Bokhoven, Marloes A. van	12-9-2008	Blood test ordering for unexplained complaints in general practice. The feasibility of a watchful waiting approach	Dinant, G.J. Grol, R.P.T.M. Bindels, P.J.E.
Boom, Hannerieke C.I. van der	25-6-2008	Home Nursing in Europe	Philipssen, H.
Bouman, Anneke I.E.	11-6-2008	Home visiting program for older persons with poor health status	Kempen, G.I.J.M. Knipschild, P.G.
Bruijn, Camiel P.C. de	6-3-2008	The effectiveness of an education and activation program in acute and sub-acute shoulder complaints presented in general practice	Dinant, G.J. Heuvel, W.J. van den Bie, R.A. de
Cate-Hoek, Arina J. ten	10-10-2008	New developments in diagnosis and treatment of deep vein thrombosis	Prins, M.H.
Dammeijer, Patrick F.M.	17-01-2008	The Stapedius Muscle of the Rat; developmental aspects and adaptive properties of stapedius muscle fibre composition	Manni, J.J. Mameren, H. van
Derkx, Hay P.T.	18-6-2008	For your ears only". Quality of telephone triage at out-of-hours centres in the Netherlands	Knottnerus, J.A.
Essers, Brigitte A.B.	5-6-2008	Surgical Excision and Mohs Micrographic Surgery for Basal Cell Carcinoma: An evaluation from different perspectives	Prins, M.H. Neumann, H.A.M.
Geel, Antonia C.M. van	10-10-2008	Fracture prediction in primary care: more than bone alone"	Dinant, G.J. Geusens, P.P.M.M.
Grutters, Janneke P.C.	15-2-2008	Health technology assessment of organizational innovation in health care	Manni, J.J.
Guldmond, Nico A.	23-5-2008	Plantar pressure, diabetes and foot orthoses therapy. Studies on etiological, diagnostic and therapeutic aspects	Walenkamp, G.H.I.M. Schaper, N.C.
Helden, Svenhjalmar van	5-9-2008	Looking beyond the fracture. Prevention in fracture care	Brink, P.R.G. Geusens, P.P.M.M.
Hendricks, drs. Theo J.W.	29-2-2008	Refractive errors: occurrence, aspecific health complaints, and functional problems	Knottnerus, J.A. Hendrikse, F.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Versluis, E.	yes	policy/research	ECORYS research and consulting Rotterdam
van der Weijden, G.D.E.M.	yes	research/teaching	Researcher UM/CAPHRI, Dept. General Practice
Stevens, F.C.J.	yes	policy	First teacher and researcher UM/CAPHRI (Health Ethics & Society; International Health; General Practice) since Sept. 2010 PhD co-ordinator CAPHRI
Rossum, H.J.L. van	yes	research	NIVEL, Utrecht and Dept. Of Health Organization, Policy and Management
Heijden, G. van der	yes	research	Researcher Centre for Statistics
Stoffers, H.E.J.H. Hamulyak, K.	yes	care/research	-
Anteunis, L.J.C.	yes	care	ENT specialist Vie Curie medical Centre voor Noord-Limburg
Rethans, J.J.E. Muijtjens, A.M.M.	yes	research/ teaching	CZ, Skillslab
Dirksen, C.D.	yes	research	MUMC, Kemta
van der Voort, D.J.M.	yes	research	Researcher Rheumatology
Anteunis, L.J.C. Joore, M.A., Horst F.G.E.M. van der	yes	research	Assistant professor UM/CAPHRI, Dept. Of Health Organization, Policy and Management
Sanders, A.P.	yes	research	TNO Leiden, Head researcher
-	yes	care	Surgeon
Brabander, J. de Horst F.G.E.M. van der	yes	care	General practitioner

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Name	Graduation date	Thesis title	Promoter(s)
Hendriks, Marike R.C.	11-6-2008	Multidisciplinary fall prevention; effects, feasibility and costs	Eijk, J.T.M. van Crebolder, H.F.J.M.
Hoomans, Ties	17-10-2008	Economic Evaluation of Change in Clinical Practice: Methods for Informing Decisions about Guidelines and Implementation Strategies	Severens, J.L.
Huizing, Anna R.	14-3-2008	Towards restraint-free care for psychogeriatric nursing home residents	Hamers, J.P.H. Berger, M.P.F.
Korstjens, Irene	03-10-2008	Cancer Rehabilitation	van den Borne, H.W.
Kotz, Daniel	21-11-2008	Confronting smokers with previously undetected airflow limitation for smoking cessation	van Schayck, C.P.
Lamers, ir. Femke	26-9-2008	Treating depression in chronically ill elderly. The evaluation of a Minimal Psychological Intervention	Eijk, J.T.M. van Knottnerus, J.A.
Leurs, Mariken T.W.	16-5-2008	A Collaborative approach to tailored whole-school health promotion	Vries, N.K. de Schaalma, H.P.
Ludwig, Martijn	28-11-2008	Efficiency of Dutch hospitals	van Merode, G.G., Groot, W.N.J.
Maas, Tanja	24-10-2008	PREvention of Asthma in genetically Susceptible Children (PREVASC)?	van Schayck, C.P. Knottnerus, J.A.
Moonen, Adrianus F.C.M.	05-12-2008	Postoperative autologous retransfusion of shed blood in primary total hip and knee arthroplasty	Walenkamp, G.H.I.M.
Moulin, Monique F.M.T. du	17-12-2008	Urinary incontinence in primary care diagnosis and interventions	Hamers, J.P.H.
Norg, Roelf J.C.	25-1-2008	A general practitioner's approach to lower urinary tract symptoms	Knottnerus, J.A. Schayck, C.P. van
Peeters, Andrea	16-1-2008	Primary open-angle glaucoma and ocular hypertension; cost-effectiveness of early detection and treatment	Prins, M.H. Hendrikse, F.
Penders, Bart	01-10-2008	From seeking health to finding healths	Vos, R. Horstman, K.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Haastregt, J.C.M. van	yes	research	UM/KEMTA, Dept. HOPE
Ament, A.J.H.A. Evers, S.M.A.A.	yes	research	Postdoc UM/CAPHRI, Dept. HOPE + Research Associate, Assistant Professor at University of Chicago
-	yes	-	RHZ Maastricht
Mesters, E.P.E.	yes	research	Midwifery Academy, Maastricht
Wesseling, G. Huibers, M.J.H.	yes	research	Postdoc UM/CAPHRI, Dept. General Practice
Bosma, J.H.A.	yes	research	Postdoctoral Visiting Fellow, Section on Developmental Genetic Epidemiology, National Institute of Mental Health, Bethesda (USA)
Mur - Veeman, I.M.	yes	policy	Hoofd Centre 'Gezond Leven' RIVM
-	yes	policy	Senior consultant Casemix (data based solutions in the cure sector)
Dompeling, E.	yes	research	MUMC+
Pilot, P., Verburg A.D., Heyligers, I.C. Wesseling, G.	yes	care	Dept. Orthopaedics, Maasland hospital Sittard?
Halfens, R.J.G. Paulus, A.T.G.	yes	research	Researcher UM/CAPHRI, Dept. Nursing and Care
Portegijs, P.J.M.	yes	care/research	General practitioner and, MUMC+
Schouten, J., Webers, C.A.B.	yes	care	First Ophthalmology, now researcher KEMTA, UM
-	yes	research/teaching	Postdoc UM/CAPHRI, Dept. Health Ethics and Society

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Name	Graduation date	Thesis title	Promoter(s)
Person, Bobbie	16-10-2008	A qualitative study on the effect of lymphatic filariasis on women: experiences, needs, and implications for lymphedema management programs	van den Borne, H.W.
Prompers, Leonne M.	29-5-2008	Diabetic Foot Disease in European Perspective	Schaper, N.C.
Raeve, Lore de	19-9-2008	Changes in Psychosocial Work environment and Health: A Mutual Relationship	van den Brandt, P.A.
Rosias, Philippe P.R.	14-2-2008	The development of exhaled breath condensate; a noninvasive method of measuring airway inflammation	Schayck, C.P. van Zimmermann, L.J.I.
Ruland, Erik C.	20-6-2008	<i>Bestuurlijke verankering van innovaties in de openbare gezondheidszorg; lessen uit de casus Hartslag Limburg</i>	Spreeuwenberg, C. Ree, J.W. van
Saxer, Susanne	11-9-2008	Urinary Incontinence in Nursing Home Care	de Bie, R.A. Dassen, Th.
Seute, Tatjana	01-2-2008	Neurologic complications in small cell lung cancer	Limburg, M. Prins, M.H.
Snijders, Bianca E.P.	22-2-2008	Breastfeeding and Infant Atopic Manifestations	Brandt, P.A. van den
Steenkiste, Ben C. van	19-6-2008	The use of risk tables for cardiovascular prevention in general practice; evaluation of decision support for doctors and patients	Grol, R.P.T.M.
Tekle, Fetene B.	08-10-2008	D-optimal designs for prospective cohort studies	Berger, M.P.F.
Welie, Sander P.K.	05-09-2008	Criteria for Assessment of Patient Competence. A conceptual Analysis from the Legal, Psychological and Ethical Perspectives	Wijmen, F.C.B. van Dute, J.C.J. Widdershoven, G.A.M.
Willems, Daniëlle C.M.	31-1-2008	Nurse-led telemonitoring in asthma; Process, Outcomes, and Cost-effectiveness	Severens, J.L. Wouters, E.F.M.
Zijlstra, Gertrud A. Rixt	28-2-2008	Managing concerns about falls; Fear of falling and avoidance of activity in older people	Kempen, G.I.J.M. Eijk, J.T.M. van
Allet, Lara	16-12-2009	Gait and balance characteristics in patients with diabetes type 2. Evaluation and treatment efficacy	Bie, R.A. de

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Bartholomew, L.A.	unknown	-	-
Huijberts, M.S.P.	yes	care	Medical doctor nuclear medicine, Academic hospital Maastricht
Kant, IJ. Vasse, R.M.	yes	policy	Royal Limburgs Pharmacist Association, Genk, Belgium
Dompeling, E. Jobsis, Q.	yes	care	Child specialist Orbis Medisch Centrum, Sittard
Raak, A.J.A. van	yes	policy/research	Programme manager 'de Gezonde Wijkaanpak', Den Haag
Halfens, R.J.G.	yes	care/research/teaching	Head Nursing Department St Gallen, Switzerland
Twijnstra, A. Velde, G.P.M. ten	yes	care/research/teaching	Neurologist UMC Utrecht
Thijs, C.T.M. Stelma, F.	yes	research	Epidemiologist, RIVM
Weijden, T. van der	yes	teaching/research	UM/CAPHRI, Dept. General Practice
Tan, E.S.	yes	research/teaching	Assistant professor University of Tiburg
-	yes	research	Foundation PVP, trainer legal aspects confidential advisors in care
Joore, M.A. Hendriks, J.J.E.	yes	research	UM/CAPHRI, Dept. Epidemiology
Haastregt, J.C.M. van	yes	research	Postdoc UM/CAPHRI, Dept. Nursing and Care
Bruin, E.D. de, Armand, S.	yes	research	Researcher University Bern, Germany

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Name	Graduation date	Thesis title	Promoter(s)
Baars, Irma J.	26-03-2009	Exploring the Design, Planning and Control of Mental Health Care Services	van Merode, G.G. Arntz, A.R.
Barque Hubert, Jane E. de	03-12-2009	The realities of life for people with severe and profound intellectual disabilities and mental health problems	Curfs, L.M.G. Hollins, S.
Beemsterboer, Willibrordus G.M.	18-12-2009	On Regional Differences in Sick Leave. The role of work, individual and health characteristics and socio-cultural environment	Nijhuis, F.J.N. Groothoff, J.W.
Bruchem-van de Scheur, Grada G. van	16-01-2009	The role of nurses in medical end-of-life decisions	ter Meulen, R.H.J. Huijter Abu-Saad, H.
Cals, Jochen W.L.	03-12-2009	Respiratory tract infections in general practice – enhanced communication skills and C-reactive protein testing to optimize management	Dinant, G.J. Butler, C.C.
Celik, Halime	20-11-2009	Gender Sensitivity in Health Care Practices: From Awareness to Action	Widdershoven, G.A.M. Lagro-Janssen, A.L.M.
Crutzen, Rik M.M.	19-02-2009	Hard to get, hard to keep; Dissemination of and Exposure to internet-delivered health behaviour change interventions aimed at adolescents	de Vries, N.K.
Hartmann, ing. Antonia	06-11-2009	Stimulation of Different Foot Structures and Functions. Effects on physical performance in older adults.	Bie, R.A. de Murer, K.
Helmhout, Pieter H.	17-12-2009	Lumbar extensor training in low back pain management	Bie, R.A. de
Jonkers, Catharina C.M.	05-02-2009	Emotional support for chronically ill elderly persons; feasibility, effectiveness and cost-effectiveness of a minimal psychological intervention	van Eijk, J.T.M. Metsemakers, J.F.M.
Kloppenburg, Geoffrey T.L.	24-04-2009	Role of infections on intimal hyperplasia	Bruggeman, C.A.
Landeweerd, Laurens	19-02-2009	Reconstruction the Self Problems of Choice, Fate and Justification in the Eugenics-debate	Vos, R. ter Meulen, R.H.J.
Leone, Stephanie S.	16-01-2009	Unravelling fatigue in the working population: Course, consequences, and its association with burnout	Knottnerus, J.A.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Evers, S.M.A.A.	yes	policy	Care Advisor Fluent
-	yes	research	St. George's, University of London and Gouverneur Kremers Centrum
-	yes	policy	Staff member Medical affairs Expertisecentrum Centrum Indicatiestelling Zorg, Driebergen
van der Arend, A.J.G.	yes	teaching	Key lecturer Master Advanced Nursing Practice
Hopstaken, R.M.	yes	research	Postdoc UM/CAPHRI, Dept. General Practice
Abma, T.A.	yes	other	lawyer's office (also degree in Law)
de Nooijer, J.M.	yes	research	Postdoc UM/CAPHRI, Dept. Health Promotion, received a VENI in 2010
Bruin, E.D. de	yes	research	Researcher ETH (science and technology university) Zurich, Switzerland
Staal, J.B.	yes	research	Researcher TGTF (Training medicine and training physiology) land forces
Bosma, J.H.A Evers, S.M.A.A.	yes	policy	Policy adviser NWO, Den Haag
Stassen, F.R.M.	yes	care	In training to become cardiothoracs surgeon
-	yes	research	Centre for Society and Genomics, TU Delft
Kant, IJ. Huibers, M.J.H.	yes	research	VUMC, Amsterdam

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Name	Graduation date	Thesis title	Promoter(s)
Linden, Helma (A) W.N. van der	16-10-2009	Connecting health care professionals: Studies on a generic HER system framework	Hasman, A.
Lotrean, Lucia Maria	13-11-2009	Romanian adolescents: health-risk behaviours and smoking prevention	Vries, H. de Ionut, C.
Luitgaarden-Janssen, Jade M.V. van de	20-03-2009	Excessive alcohol use in youth on holiday; an evaluation of two intervention methods	Knibbe, R.A. Wiers, R.W.
Mastricht, Ghislaine A.P.G. van	25-09-2009	Outcome Assessment and Economic Evaluation of Short Stay Intensive Care for Coronary Artery Bypass Patients	Maessen, J.G. Prins, M.H. Severens, J.L.
Meijers, Judith M.M.	02-07-2009	Awareness of malnutrition in healthcare	Schols, J.M.G.A. Dassen, Th.
Mercken, Liesbeth A.G.	20-11-2009	Influence or Selection. Dynamics of friendship networks and smoking behavior in adolescence	Vries, H. de Snijders, T.
Mevissen, Fraukje E.F.	11-09-2009	Bedtime Stories	Schaalma, H.P.
Molema, Johanna J.W.	13-11-2009	Hospital system design. Creating supply flexibility to match demand variability	Merode, G.G. van
Moser, Albine	23-10-2009	Competency in shaping one's life; autonomy of older adults with type 2 diabetes mellitus who are treated in a nurse-led clinic	Widdershoven, G.A.M. Spreeuwenberg, C.
Ortega Azurduy, Shirley A.	01-07-2009	Robust designs for longitudinal studies	Berger, M.P.F.
Osch, Liesbeth A.D.M. van	15-05-2009	Beyond Motivation; an exploration of pre- and postmotivational determinants of cancer-related behaviors	de Vries, H. Lechner, L.
Plat, Adrianus W.	29-05-2009	Genetics and cardiovascular risk in a primary care population. Studies from the HIPPOCRATES project	van Schayck, C.P. de Leeuw, P.W.
Riet, Jonathan P. van 't	16-10-2009	Framing health communication messages	Vries, H. de
Vosse, Debby	09-04-2009	The impact of Ankylosing Spondylitis on bone	van der Linden J.M.J.P. Geusens P.P.M.M. Landewe, R.B.M.
Wees, Philip J. van der	10-09-2009	Evaluation of Evidence-Based Clinical Guidelines in Physical Therapy: Ankle Sprain as Case Example	de Bie, R.A., Dekker, J.

Co-promoter(s)	Job: yes/no	Type	Current job/job after promotion
Talmon, J.L.	yes	industry	Software developer OmniHis
Mesters, E.P.E.	yes	research	Department of Environmental Health, University of Medicine and Pharmacy, Romania
-	yes	other	co-owner Euregional congress bureau, Maastricht
-	yes	industry	Medtronic
Halfens, R.J.G. Bokhorst-v.d. Schueren, M.A.E.	yes	research	UM/CAPHRI, Dept. Nursing and Care
Candel, M.J.J.M.	yes	research	UM/CAPHRI, Dept. Health Promotion
Meertens, R.M., Ruiter, R.A.C.	yes	research	UM, Psychology
-	yes	research	TNO quality of life, researcher/adviser Arbeidsbesparende Innovaties in de Zorg
-	yes	research	Postdoc UM/CAPHRI, Dept. General Practice, lecturer HSZuyd
Tan, E.S.	yes	research	Centraal Bureau for Statistics, Voorburg
Reubsaet, A.	yes	research/teaching	UD UM/CAPHRI, Dept. Health Promotion, received a VENI in 2010
Stoffers, H.E.J.H., Kroon, A.A. Ruiter, R.A.C. de	yes	research	Research manager PHARMO Institute for Drug Outcomes Research, Utrecht
-	yes	research	LEI (food research) Wageningen
Hendriks, H.J.M.	yes	care/research	UD and Rheumatologist Academic Hospital Maastricht
-	yes	research/policy	Chair Guidelines International, onderzoeker UM en Nijmegen

# CAPHRI Awards

<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
The BMJ Group Award- Research Paper of the Year Finalist 2010, awarded by the BMJ group to recognise individuals, organisations and initiatives that have demonstrated outstanding and measurable contributions to health care.	Cals, J.W.L. Butler, C.C. Hopstaken, R.M. Hood, K. Dinant, G.J.	2010
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
European Academy of Allergy and Clinical Immunology (EAACI) travel grant to the congress, JMA poster award	Kant, K.D.G. van de	2010
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Cum laude PhD thesis in 2009 defended at Maastricht University	Cals, J.W.L.	2009
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
ZonMw (MRC the Netherlands) Pearl for outstanding research	Cals, J.W.L.	2009
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
CaRe dissertation prize for best PhD thesis in 2009	Cals, J.W.L.	2009
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Best Manuscript NWO talent class	Kant, K.D.G. van de	2009
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Young Scientist sponsorship of the Medical University of Vienna	Kant, K.D.G. van de	2009

<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Nomination by the national association of managers in health care ( <i>Nederlandse Vereniging van Bestuurders in de Gezondheidszorg, NVZD</i> ) thesis award	Zeelenberg, J.E.	2009
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
CaRe Award for the best PhD thesis in 2008	Zeelenberg, J.E.	2008
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Telephorus Award of the Dutch College of General Practitioners ( <i>NHG Nederlands Genootschap van Huisartsen</i> ) by a practicing GP in the previous two years	Bokhoven, MA Van	2008
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Award for the best presentation, by the Maastricht University Medical Center (department RVE-EVK)	Kant, K.D.G. van de	2008
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
Kootstra talent fellowship, awarded by Maastricht University Medical Centre to young researchers	Kotz, D.	2008
<b>Award Primary Care</b>	<b>Winners</b>	<b>Year</b>
ERS Young scientist Sponsorship, awarded by the European Respiratory Society	Kotz, D.	2008

<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Pfizer HTAcademy national and European scholarship prize	Grutters, J.P.C.	2010
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
ISPOR Research Excellence Award 2010	Hoomans, T	2010
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
ECG-GABA Award, awarded by GABA International during the Congress European College of Gerontology	Schols, J.M.G.A. Visschere, L. de	2010
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
ZonMw Pearl for the Impala project "Shared decision making lifestyle counseling"	Weijden, G.D.E.M. van der	2010
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
CaRe Award, Research school award for the best thesis of the national research school Care published in 2008	Bokhoven, MA Van	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Telephorus Award, National award from Dutch Society of General Practitioners for the best thesis within the Dutch Primary Care field published in 2007-2008	Bokhoven, MA Van	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
2nd prize best thesis of 2008 Netherlands Society of Otorhinolaryngology and Cervico-Facial Surgery	Grutters, J.P.C.	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Nomination MTA prize 2008 of the Dutch Society for Technology Assessment in Health Care (NVTAG) for best publication on an innovative methodological topic	Grutters, J.P.C.	2009

<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Young Investigator Award, Proton radiotherapy conference	Grutters, J.P.C.	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Recipient (on behalf of the Diabetes interactive Education Project, DIEP) of the Dutch Award for Diabetes Education Study Group (DESG)	Schaper, N.C.	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Casuistry Award ( <i>Casuistiekprijs</i> ) awarded by the Dutch Association of General Practitioners ( <i>Nederlands genootschap van Huisartsen</i> )	Schols, J.M.G.A. Kinkelder, A. de	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
DESG (Diabetes Education Study Group) award for project "Diabetes interactive Education Project, DIEP"	Vries, N. de Schaper, N.C. Heinrich, E.	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
MAASTRO Award for special achievements of researchers in the MAASTRO Clinic	Braeken, V.	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
NWO RUBICON grant	Lamers, F	2009
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Schreuderprijs for best PhD thesis in Gerontology in the Netherlands 2007-2008	Zijlstra, G.A.R.	2008

<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Best publication of 2008, chosen by audience and jury of the Dutch Association for Technology Assessment in Health Care	Hoomans, T	2008
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
NWO RUBICON grant	Hoomans, T	2008
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Janneke Witsenburg Poster Award, Awarded by the Dutch Association for Gerontology	Verbeek, H. Rossum, H.J.L. van, Zwakhalen, S.M.G., Kempen, G.I.J.M. Hamers, J.P.H.	2008
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Award by Dutch Patient and Consumer Federation & NITTEL for evaluation of telemonitoring for patients with heart failure	Vrijhoef, H.J.M.	2008
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Harkness Fellowship in Health Policy & Practice by The Commonwealth Fund (USA) as first Dutch researcher ever	Vrijhoef, H.J.M.	2008
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Karolinska Management Centre-EHMA Research Award 2006 "for the best peer-reviewed article"	Raak, A.J.A. van	2006

<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
Quality Award Diabetes Care (Kwaliteitsprijs Diabeteszorg), awarded by Novo Nordisk for the best national project on improvement of care for Diabetespatients.	Schaper, N.C. Ovink, A. Heinrich, E.	2005
<b>Award Innovation of Care</b>	<b>Winners</b>	<b>Year</b>
ZonMw Pearl, awarded for the MATADOR project (Maastricht Transmural Diabetes Organisation)	Vrijhoef, H.J.M.	2004
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
DESG (Diabetes Education Study Group) for the Diabetes interactive Education Project, DIEP	Vries, N. de Schaper, N.C. Heinrich, E.	2009
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Best Poster Presentation Award European Congress in Tropical Medicine and International Health.	Ambrosino, E.	2009
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Hustinx Scholarship, awarded by the Edward Hustinx Foundation to lend support to promising young researchers attached to Maastricht University	Smerechnik, C.M.R.	2008
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Young Gasteiner, the European Health Forum Gastein (EHFG) awarded to bring young and promising policy-officers and researchers of European Union member states to Gastein.	Schulte in den Bäumen, T.	2008

<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Scholarship to attend the training course in Management of programmes for communicable diseases control in Sub-Saharan Africa	Ambrosino, E.	2007
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Scholarship to attend The Potent New Anti-Tumor Immunotherapies	Ambrosino, E.	2007
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Quality Award Diabetes Care ( <i>Kwaliteitsprijs Diabeteszorg</i> ), awarded by Novo Nordisk for the best national project on improvement of care for Diabetespatients.	Schaper, N.C. Ovink, A. Heinrich, E.	2005
<b>Awards Public Health</b>	<b>Winners</b>	<b>Year</b>
Guest researcher at Karolinska Institute, Stockholm on Gender differences in return-to-work	Rijk, A.E. de	2005

CAPHRI Postdoc researcher Jochen Cals was nominated for the ‘Research Paper of the Year 2009’. This is a special award, instituted by the BMJ, for the medical journal article that, of all international journal articles in 2009, has contributed most significantly to improving health and health care (societal impact).

# Interviews with stakeholders on societal impact

- 1 Henk Smid, Director of the Netherlands organisation for health research and development, ZonMw
- 2 Lies van Gennip, Director of the Dutch STIVORO foundation, an organisation that strives for a smoke-free future.
- 3 Roger Ruijters, member of the executive Board of the South Limburg *MeanderGroep* (Intra- and extramural Care Group)
4. Jo Maes, Director of the regional *Huis voor de Zorg* (House of Care)
5. Paul van der Maas, Emeritus Professor of Public Health, former Dean Erasmus MC Rotterdam
6. Jacques Costongs, Maastricht Councillor

### ZonMw promotes healthcare research and innovation

ZonMw, the Netherlands organisation for health research and development, strives to improve prevention, care and general health by promoting and funding research, development and implementation.

What is needed to improve the health of the Dutch population varies, according to ZonMw, from basic knowledge development on the functioning of the human body to the broad application of new treatments and healthcare interventions. ZonMw is active throughout this whole knowledge continuum, from fundamental research to implementation. ZonMw is an intermediary between healthcare research, policy and care innovation, says Henk Smid, Director of ZonMw.

The majority of ZonMw's commissions come from the Ministry of Health, Welfare and Sport (VWS) and the Netherlands Organisation for Scientific Research (NWO). ZonMw is often commissioned by these, and other organisations, to promote specific fields of research and find solutions for certain sticking points. To this end, ZonMw, along with other experts in the field, analyses the state of affairs and draws up action plans, giving research and practical institutions the opportunity to carry out research or to develop, test and implement innovations on a project basis.

ZonMw and CAPHRI have had close ties ever since this research institute was founded: CAPHRI staff are frequently involved in submitting funding applications for specific projects and, conversely, CAPHRI staff are often consulted by ZonMw for their expertise in evaluating project proposals and asked to serve as committee members.

### Interview 1:

### Henk Smid, Director of ZonMw

**“CAPHRI research financed by ZonMw has, without a doubt, great potential social relevance”, says ZonMw Director, Henk Smid. A good example of this is the research at CAPHRI into a vaccine against nicotine addiction. “If this vaccine is effective and is marketed, many people who now try in vain to quit smoking can kick their addiction. This would have a positive impact on public health.”**

“In other words, research like this”, says Smid, “has a major impact on society.” This impact is characteristic of research with great potential social relevance. According to the ZonMw director, this societal impact can be divided into the effects on public health and healthcare (social impact) on the one hand, and the economic gains, such as patents (economic impact), on the other.

ZonMw believes that the potential societal impact on future public health and healthcare is very important. “For this reason, social relevance is often one of the criteria used at ZonMw to evaluate project proposals.” ZonMw attaches great importance to whether research can be turned into useful healthcare applications. “ZonMw identifies implementation opportunities for ongoing and completed projects, and then puts them into action.”

Smid explains that CAPHRI regularly submits project proposals to ZonMw, a cooperation that was initiated shortly after the official start of CAPHRI. “CAPHRI staff members are quite often involved in applications for funds. They are also frequently consulted on the evaluation of project proposals and asked to serve as committee members.”

Another reason for this close relationship is CAPHRI's active involvement in the Limburg Academic Collaborative Centre for Public Health (ACC). ACC, a collaboration between Regional Public Health Service in South Limburg, Maastricht UMC+ and the South Limburg city councils, aims to bridge the gap between policy, practice and science. Problems in everyday healthcare serve as a foundation for the research, and PhD candidates from the Academic Collaborative Centre  
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are given places at CAPHRI to conduct their research. “When evaluating project proposals, CAPHRI works together with partners from the world of policy and practice”, says Smid, also naming the good relationship with CAPHRI’s Research Director.

According to Smid, CAPHRI’s research proposals often lead to studies with great potential social relevance. As well as the research into the vaccine against nicotine addiction, he names a retrospective study into Q fever as an example. “Here the risk of infection through primary and secondary contact is measured in different populations by studying the transmission and dispersion of the disease through time and space.”

Another example is the ZonMw Pearl prize that was awarded to CAPHRI in March 2010 for the IMPALA project. “IMPALA was developed as an instrument for the application of the NHG standard for cardiovascular risk management, a guideline for general practitioners. The prize was awarded partially due to the project’s broad applicability. Other chronic disorders or risk factors for chronic disorders were also aided by the combination of risk communication, motivating conversation, support in decision making and shared decision making. This approach has provided an excellent method for science-based healthcare that also respects the patient’s wishes.”

As a final example, Smid names the implementation fellowship that was awarded at the start of 2010 through the Efficiency Research Programme. “ZonMw awarded this fellowship with the aim of giving a knowledge incentive and stimulus to the knowledge implementation infrastructure.”

The quality of the CAPHRI research proposals is evaluated at ZonMw by national and international external experts. The relevance of these studies is evaluated by the programme committees of, for instance, Prevention and the Academic Collaborative Centre for Public Health. On the basis of these evaluations, programme committees make recommendations that are usually adopted by ZonMw. “In carrying out project proposals, CAPHRI is helping to realise ZonMw’s programme objectives.”

Speaking of CAPHRI’s results, Smid finally mentions the numerous papers published by CAPHRI researchers as a result of the PREVASK study of the ZonMw prevention programme. “Partially on the grounds of the results of this study, the National Health Council was able to formulate recommendations regarding the effects of allergies and environmental factors on asthma<sup>1</sup>.”

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<sup>1</sup> *Gezondheidsraad. Astma, allergie en omgevingsfactoren* ('Astma, allergies and environmental factors').  
*The Hague: Gezondheidsraad, 2007; publication no. 2007/15. ISBN 978-90-5549-670-9.*

### **STIVORO: striving for a smoke free future**

“Improving the public health of smokers and non-smokers through the development and application of knowledge on tobacco consumption and addiction”. This is the objective of the Dutch STIVORO foundation, an organisation that strives for a smoke free future. The organisation was founded by the Asthma Fund, the Dutch Cancer Society (KWF Kankerbestrijding) and the Netherlands Heart Foundation. Lies van Gennip was appointed Director in February 2006.

In its strive for a smoke free future, the foundation regularly organises campaigns, helps people quit smoking and has recently also developed educational programmes for schools.

STIVORO distinguishes itself as a knowledge centre with its own research department, working together with other research institutes. The information they provide in their information campaigns, as well as the effectiveness of these interventions, is founded on scientific research.

CAPHRI has been an important partner for collaboration with STIVORO since 1990. This partnership, formalised in 1991, develops interventions that are aimed at helping people to quit smoking, with STIVORO responsible for the nationwide implementation. Studies are also held into the effectiveness of these campaigns.

The partnership between CAPHRI and STIVORO was further expanded in the spring of 2010, with the appointment of Marc Willemsen at CAPHRI as extraordinary professor of Tobacco Control Research. Willemsen is also head of STIVORO’s research department. As extraordinary professor, his focus includes research into legislation in the area of smoking cessation and its effects on public health.

### **Interview 2:**

#### **Lies van Gennip, Director of the Dutch STIVORO foundation**

**“Together we create products that are useful for society”**

**The partnership with CAPHRI rests on a conscious choice, says STIVORO Director Lies van Gennip. “On a nationwide level, there is no other institute more in favour of an integral approach to smoking cessation than CAPHRI. In this sense their research group has a more extensive research base than anyone else in the field, and this provides a good basis for cooperation.”**

For Van Gennip, STIVORO was a conscious choice. “The organisation’s focus is between scientific research and the application of that research, the exact characteristics I wished to see in my own career. I think it’s important that research not only leads to publications, but also has a tangible and positive effect in society.”

She describes STIVORO as an organisation that uses evidence-based work methods and that, thus, designs campaigns that are scientifically well founded. “We only use methods that work and make a difference in striving for smoking cessation. By doing this, we make an important contribution to society: our work has great societal value and impact.”

The figures speak for themselves: although smoking in our country is still the main preventable cause of death, the number of people that smoke has clearly dropped. Also fewer people are confronted with second hand smoke. “Smoking is no longer as socially acceptable as it used to be – non-smoking has become the norm. And STIVORO has helped bring this change about.”

The cooperation with CAPHRI plays an important role, says Van Gennip. At first this cooperation was principally focused on the development of interventions aimed at getting people to quit smoking and at research into the effectiveness of these interventions. For instance, while working together with CAPHRI, an online product was developed that serves  
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as an aid for people who want to quit smoking. “Its effectiveness has since been proven: people trying to give up smoking are more likely to succeed if they use this online programme. At this moment we are working together with CAPHRI to create a comparable product for young people from the age of 15.”

These are but a few examples of successful interventions that Van Gennip believes are a result of a well coordinated team effort in a practical and scientific environment. “STIVORO is at the heart of society and has close contact with, for instance, city councils, municipal health services and doctors. CAPHRI provides us with a scientific environment that serves as a basis for the introduction of new STIVORO products. Together we create new products that are useful for society.”

Van Gennip sees the appointment of Marc Willemsen as extraordinary professor for Tobacco Control Research at CAPHRI as an important development for the cooperation with STIVORO. “This gives the research a broader character”, says Van Gennip. Up until now, the focus of research was on the health of individual smokers and non-smokers. With the appointment of Marc Willemsen, more emphasis is being placed on the legislation surrounding smoking cessation and its effects on public health. “We now have the opportunity to take an integral approach to policies on smoking cessation. Seen on a national level, CAPHRI is also the research institute that, in addition to carrying out research aimed at intervention, is most active in this field. Through this integral approach, for instance, we can study how a smoking ban combined with focused campaigns leads to optimal results. How can these campaigns be most effective? What should the message be?”

Van Gennip sees CAPHRI’s efforts to seek publicity as a positive move. It draws attention to smoking cessation on the individual level and the level of legislation and public health. “It’s good that even in the scientific research community voices are being heard from people calling for an anti-smoking policy. CAPHRI is growing in that role and has been able to distinguish itself as an institute with an influence on the political agenda.”

“The extra attention for smoking cessation is direly needed”, says Van Gennip. “Because the percentage of smokers has stopped falling.” That’s why she feels it’s important that

CAPHRI and STIVORO continue to work together to establish the research strategies that they expect will be most effective. “We must specifically look for practical applications. We must research those methods that will be most effective and that will also receive funding.”

### **South Limburg MeanderGroep: intramural and extramural healthcare under the same roof**

The South Limburg MeanderGroep has been around since 2006, ever since Care Group (Zorggroep), Meander and Home Care Group (Zorggroep Thuis) merged. Thanks to this merger, intramural and extramural care are now under the same roof.

The South Limburg MeanderGroep is the largest care provider in Parkstad (eastern South Limburg). The organisation has seven care homes, three nursing homes and several small-scale homes for elderly people with dementia. The MeanderGroep also has various locations for day care, where people can drop by for recreational activities and a hot meal.

Extramural care comprises home care, youth healthcare and maternity care. MeanderGroep also has a Care Service, with a local membership of 50,000 families. The Care Service offers leisure services, courses and more, and gives discounts on, for instance, sport memberships and swimming pools.

The MeanderGroep employs a total of 5000 people who together provide care to 12,000 clients. The larger part of this care is given through extramural care. The Executive Board is formed by Jos Meijerink (chairman) and Roger Ruijters.

Since 1998, MeanderGroep has had intensive contact with Maastricht University, in the form of the cooperation with Jan Hamers' research group. Hamers was appointed Professor of Geriatrics and Elderly Care (Verpleging en Verzorging van Ouderen) at CAPHRI.

According to the MeanderGroep, both parties benefit a great deal from this cooperation - CAPHRI is given the opportunity to study the everyday reality of care for the elderly and the MeanderGroep is able to present socially relevant research questions and obtain and apply scientific knowledge in innovating care processes. cessation and its effects on public health.

### **Interview 3:**

## **Roger Ruijters, member of the executive Board of the South Limburg MeanderGroep**

**“CAPHRI research is beneficial to the entire field of geriatrics and elderly care”**

**The cooperation between the MeanderGroep and CAPHRI over the past years has clearly resulted in changes in elderly care. For instance, the reduction of restrictive measures in care for elderly people suffering from dementia arose from this partnership. “The results of this scientific research are not only useful for us, but for the whole sector”, says Roger Ruijters.**

Ruijters has been a member of the executive board since 2002, and was formerly the Director of the Hambos clinic in Kerkrade. His cooperation with Hamers dates back to this period and was the first step in the cooperation with Maastricht University. Initially, Hamers also worked at the organisation one day a week. It was still known as Zorggroep Meander back then. “He brought people with affinity for scientific research together in the organisation and worked with them in formulating research questions on the basis of the needs of the elderly. His direct participation in practical activities resulted in a work method that was socially relevant.”

This was a “crucial” development, according to Ruijters, “because the sector of geriatrics and elderly care had long been lagging behind in the field of scientific innovation. Ten years ago, care for the elderly was far from an example of an innovative and entrepreneurial sector. The question whether our work was effective and whether it could be more effective was not asked.”

“This all changed, partially thanks to our work together with CAPHRI”, says Ruijters. “Ultimately this cooperation resulted in Hamers' appointment as Professor of Geriatrics and Elderly Care, a chair that is facilitated by the MeanderGroep. This is an important development for the sector. We need  
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role models like Hamers. You'll also notice that an increasing proportion of research funding is being invested in elderly care."

Another important benefit of this cooperation, Ruijters says, is the cross-disciplinary connections made in the university environment. Take, for example, the care economy, philosophy and health legislation. "This creates what we would call a body of knowledge."

Over these past years, the cooperation with Hamers' research group has led to various tangible results that can be used throughout the sector. An important example is the research into the measurement of pain in elderly people suffering from dementia and reduction of restrictive measures. For instance, in Lückerheide, the MeanderGroep nursing home in Kerkrade, tests have shown that it is not necessary to use physical restraints. The staff there receive additional training in combination with support from the management, and they have good communication with the families. The elderly care there is now physical restraint free as they use alternative measures, such as low beds or CCTV.

In continuation of this project, the nationwide study EXBELT was designed to ascertain whether psychogeriatric institutions in our country could completely ban the use of physical restraints, as Lückerheide did. Hamers now heads this project, a study funded by ZonMw. Lückerheide Director, Math Gulpers, will focus his PhD on the EXBELT research at CAPHRI. He and specialist nurse, Irene Smeets, are the national experts in this field.

Since the study at the Lückerheide nursing home, physical restraints may now only be used if all other methods have failed and there is a clear and serious indication of risk.

Another important example Ruijters mentions, is the ongoing study led by Hamers into the effects of small-scale living on elderly people suffering from dementia. There are a number of other care organisations involved in this too. "The number of small-scale homes for elderly people with dementia is increasing, and these have a completely different dynamic than the large nursing homes. We assume that small-scale living has a good effect on the residents, but we're not sure yet. It's good to be able to study this, to be sure we're on the right track. After all, choices must be made for the long term." In general, Ruijters believes that the main emphasis in

scientific research should be on the sustainability of the care system. "The crucial question is how we can ensure that the cost of care doesn't rise excessively and how we can provide quality services using fewer people, for instance, through the use of technology. CAPHRI has already started research into this area."

As an administrator in a region that is ageing fast and where the youth population is shrinking, he hopes that ultimately more emphasis will be placed on research into encouraging elderly people to care for themselves where possible. "The number of elderly people requesting care is growing rapidly. As most of these people will receive care at home, it is important that research focuses on home care. As a care provider we must actively anticipate this development."

### House of Care (*Huis voor de Zorg*) in Limburg aims to give care applicants a voice

The House of Care (*Huis voor de Zorg*) in Limburg aims to give care applicants a powerful voice and to strengthen the position of care receivers. The organisation was founded in 2002 by a group of Limburg-based umbrella and target group organisations that focus on improving healthcare services. In 2003, the *Huis voor de Zorg* officially opened its doors and Jo Maes was appointed director.

The *Huis voor de Zorg* is a network organisation in which the nine independent umbrella and target group organisations\* serve the interests of their own members. The umbrella and target group organisations are represented in the foundation's board, which provides support to the thousands of volunteers working for these organisations. Maes emphasises that the board works together closely with the organisations.

In practice, the *Huis voor de Zorg* brings the wishes of care applicants to the forefront and looks after the interests of care receivers. The *Huis voor de Zorg* also makes policy recommendations, for instance, to city councils regarding the Social Support Act (Wmo). As the representative of the network organisation, the *Huis voor de Zorg* participates directly in open discussions on healthcare in Limburg, such as the debate on the reachability of general practitioners. The *Huis voor de Zorg* in Limburg distinguishes itself from other similar organisations across the country through the research it carries out among its own members into the use of care services in the EU region.

Various CAPHRI disciplines have been consulted over the past years. An important objective of these contacts is to achieve a qualitatively better foundation for the wishes of healthcare consumer, brought to light through the *Huis voor de Zorg*.

## Interview 4:

### Jo Maes

### Director *Huis voor de Zorg*

**“Patients could benefit even more from CAPHRI research”**

**“CAPHRI uses social relevance as its starting point”, is the experience of the *Huis voor de Zorg* director Jo Maes. He says that patients are already reaping the benefits. “However I think the research needs to be put into practice even more, all to the patients’ benefit.”**

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\* The umbrella and target group organisations represented by the *Huis van de Zorg* are:

- FGL, The Limburg Federation of Organisations for the Disabled (*Federatie van Gehandicaptensorganisaties in Limburg*)
- The Provincial Platform for Regional Public Mental Health Care Applicants (*Provinciaal Platform GGZ Zorgvragers*) in Limburg
- LOC, the national organisation for representation, and support on behalf of, client councils in nursing homes, care homes and home care
- ANBO, Limburg (for over 50s: a Dutch organisation that aims to promote the interests of senior citizens to national, provincial and local governments and authorities)
- KBO, the Limburg Catholic Union for Senior Citizens (*Katholieke Bond van Ouderen Limburg*)
- PCOB, the Protestant Union for Senior Citizens (*Protestants Christelijke Ouderenbond*) in Limburg
- PAZ, the Platform for Immigrant Care Applicants (*Platform Allochtone Zorgvragers*) in Limburg
- PML, the Limburg Platform for Volunteer Aid (*Platform Mantelzorg Limburg*)
- SOL, the Limburg cooperative of parents of people with a mental disability (*Samenwerkingsverband van Oudergroeperingen van mensen met een verstandelijke handicap in Limburg*).

“The *Huis voor de Zorg* is still in a pioneering phase”, says Maes. “The question is how to let the client’s voice be heard in a way that is most effective. To give clients a voice, we need to develop a strategic policy, and this we cannot do alone – we need partners. CAPHRI is one of those partners.” Various CAPHRI disciplines have been consulted over the past years, for instance, in the field of care for the elderly and public healthcare. “If we hope to bring the wishes of care receivers to the fore, it is important to provide a good qualitative foundation for these wishes. CAPHRI can help us do this.”

CAPHRI is also represented through various professors in the scientific advisory council of *Zorgbelang*, the *Huis van de Zorg*’s free local magazine. “They evaluate the themes that are being dealt with and examine whether the method of presentation contradicts scientific findings.”

The *Huis van de Zorg* can also assist CAPHRI, says Maes. “For instance, through encouraging the implementation of instruments that have been validated by scientific research. We at the *Huis van de Zorg* also benefit, because patients benefit when these instruments are brought to the market.”

CAPHRI, says Maes, has worked together with the *Huis voor de Zorg* more intensively than any of the other research and educational institutes. “This distinguishes CAPHRI from other research institutes. It also demonstrates how highly CAPHRI values cooperation.”

The director hopes that CAPHRI can help the *Huis voor de Zorg* in achieving a better treatment of patients. “Many institutions claim that the patient is given a central focus, but in reality the patient is often treated as an object, in healthcare, as well as in science. I want the patient to be treated as a human being.” Until this becomes a reality, he believes that healthcare cannot be improved optimally. “If we want people to lead healthier lives, we must learn how to communicate differently, in such a way that the patient is also given more space. We will have to become even more active participants in the social dialogue.”

This is a wish that fits in well with the ambitions of CAPHRI, according to Maes. “Science for science’s sake is not how things are done at CAPHRI. Social relevance is the starting point. Better treatment of the patient is a natural result of such social impact thinking. Therein lies a challenge for CAPHRI.”

“CAPHRI’s research is clearly socially relevant, as the results of the past years in patient care testify”, Maes says. Striving against unnecessary restrictions in elderly care is an appealing example. “And still I feel that patients could benefit from CAPHRI’s research even more. There are still not enough research results seeping through and being put into healthcare practice. That’s why I think it’s good that CAPHRI is continually evaluating its societal impact.”

In closing, Maes believes that CAPHRI can play a role in encouraging the business industry to act on its social responsibility. “If the *Huis van de Zorg* confronts companies with the social responsibility of, for instance, producing healthier products, this must be done on the basis of scientific knowledge. Science can provide support in this effort. For an institute such as CAPHRI, which strives to achieve healthier behaviour, the task is clear. The societal impact of such an effort may be very big indeed, also on an international level.”

### **Paul van der Maas: scientist striving for socially relevant research**

Social relevance has always been key in Professor Paul van der Maas' research. The Professor Emeritus of Public Health at the Erasmus MC in Rotterdam has a great number of national and international publications with a high social relevance to his name.

Van der Maas has been connected to Erasmus since 1971, and he has also been Dean of the Erasmus MC and Vice Chairman of the Executive Board. Although he retired in January 2010, he remains involved on a small scale with the research at the University.

Another important position that he held for more than four years, alongside his work for the Erasmus MC until his retirement in 2010, was Chairman of the Advisory Council on Health Research.

In October 2006, Van der Maas was named Knight of the Order of Orange Nassau for his great contribution to public health in the Netherlands and abroad. He initiated the first large-scale post-war study into socio-economic health differences and has conducted a number of studies into the effects of the sharp rise in the ageing population on public health. He was also closely involved in the research into programmes for the early detection of cancer, and contributed to the current methods used for evaluation research. He also played a leading role in three large-scale studies into euthanasia and other end-of-life decisions, and, in doing so, made a great contribution to the social debate on these ethically charged topics.

Van der Maas has been a member of CAPHRI's Academic Advisory Council for two years now. This Council supplies the Executive Board with policy recommendations. In 2006, he was involved as a committee member in CAPHRI's mid-term evaluation.

## **Interview 5:**

### **Paul van der Maas**

#### **Emeritus Professor Public Health**

**“CAPHRI does research on all kinds of questions with social relevance”**

**“The research that CAPHRI carries out is clearly based on all kinds of socially relevant questions”, says Professor Paul van der Maas. “In many cases, this academic research can have short- and medium-term consequences for society, and CAPHRI's policy is, after all, aimed at practical application in society.”**

Van der Maas believes that academic research should always be socially relevant, “but in the broadest sense of the word. Take fundamental molecular research, for instance. It's not entirely clear how we should apply it in society, but it's still crucial for, for instance, revealing disease mechanisms.”

As far back as the early seventies, he and his colleagues at the Erasmus MC were contributing to the discussion on research and social relevance, through their research team's two-track policy. “Our starting point was that on top of societal impact, research also needed practical applications in healthcare and elsewhere in society.”

As a good example of socially relevant research from the 70s, Van der Maas mentions the development of models for a nationwide screening for breast cancer. “As for the academic impact of this research, these models are now recognised and used internationally. Speaking of their applicability, we developed a method that contributed to the development of the current well-functioning breast cancer screening here in the Netherlands.”

The question of social relevance in academic research has clearly become more widely discussed over the past decades, says Van der Maas. “You could call it a social growth process.” A process in which he explicitly names the involvement of André Knottnerus, who in the 90s organised an important symposium on the topic through the Royal Netherlands  
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Academy of Arts and Sciences. Knottnerus, Professor of GP Medicine, is also the coordinator of CAPHRI's Primary Care Cluster and a clinical-epidemiological researcher in the field of diagnostics and interventions in primary healthcare. In 2010, he was appointed Chairman of the Scientific Council for Government Policy, ending his activities as chairman of the Health Council.

People like Knottnerus paved the way for the official recommendation of socially relevant research put forward by the Health Research Council in 2007. Van der Maas was Chairman of the Council at the time. He says that this recommendation, titled 'Research that matters', features two central questions: How do the academic medical centres (UMCs) decide what to research, and do they give enough consideration to what goes on in society? This recommendation also describes the indicators for measuring the social relevance of research, which the Council stresses are still in the initial phase. The indicators must be seen as a simple and systematic tool for research institutes to collect data for their own reports on societal impact.

CAPHRI too can use the recommendation in evaluating the societal impact of research. It's hard to say, says Van der Maas, how much impact the academic research at CAPHRI already has. He believes that the distance between him and CAPHRI is still too great, although a relationship definitely exists. Van der Maas served as a committee member during CAPHRI's mid-term evaluation in 2007 and he has been a member of CAPHRI's Academic Advisory Council for the past two years. "The 2007 mid-term evaluation at CAPHRI was positive and it is clear that CAPHRI has become even more productive over the past four years in terms of research."

Van der Maas concludes by saying that CAPHRI's research accomplishments are improving and that its research is clearly aimed at tackling socially relevant problems that have potential short- and medium-term social consequences. "It's an interesting and good organisation and I'm curious to see how CAPHRI will quantify the accomplishments in the field of societal impact."

### **Municipal Councillor Jacques Costongs supports cooperation between policy, practice and science**

Jacques Costongs has always strived for cooperation between policy, practice and science. The current Maastricht city councillor for Culture, Housing and Neighbourhoods studied sociology, and followed this with thirteen years of teaching at what is now known as the University of Tilburg. He then worked in business for thirteen years as a management adviser.

In 2004, alongside his work activities, he took on the position of city councillor for Wellbeing, Healthcare and Education. Through this position, he chaired the municipal health authority (GGD) between 2004 and 2010, and in 2006 became the first ever chairman of the merged South Limburg GGD. He has held his current position since the current Board of Mayor and Aldermen took office in 2010. He also has strong ties to the political party PvdA – he has been a member of the party since he was 18, and served as a PvdA member in the Tilburg City Council during his student years.

Through his position as councillor, he supports the cooperation between the City Council, the academic community and practical institutions. He says that the cooperation with acting professionals from GGD South Limburg is crucial, as is the cooperation between the Limburg Academic Collaborative Centre for Public Health: this collaboration between GGD South Limburg, Maastricht UMC+ and the South Limburg municipalities aims to bridge the gap between policy, practice and science. The graduates of this Academic Collaborative Centre are based at CAPHRI.

Another important collaboration, according to Costongs, is the Academic Centre for Care Innovation for Elderly People (ACZIO). This Limburg network was set up by CAPHRI and is based at Maastricht UMC+. All parties in elderly care are represented in ACZIO, from care and nursing homes to general practitioners, homecare, hospitals and the elderly themselves.

## **Interview 6: Jacques Costongs Maastricht Councillor**

**“Cooperation with the academic community influences local government and encourages innovation”**

**Jacques Costongs believes that administrators benefit from cooperation with the academic community. “As a municipality, it’s interesting to have a research institution like CAPHRI as a partner, as this collaboration influences local government and encourages innovation. A major advantage is that we as municipality also come into contact with companies and institutions, and this ultimately leads to logical, academic research activities.”**

According to Costongs, the social relevance of such research is obvious. “Academic research is by definition socially relevant. The question of whether this research is also socially applicable is much more relevant. So, in this sense the emphasis has shifted. In many cases now, research methods focus more on whether results can be used as a guiding force when it comes to, for instance, society, organisations or individuals.”

The other work method is partially due to the growing cooperation between academics, policy makers and practising professionals, which is also taking place in South Limburg. Costongs gives the example of the Limburg Academic Collaborative Centre for Public Health, in which CAPHRI, as a research institute, plays an important role. “The research that practising professionals carry out through the Academic Collaborative Centre also influences city policy.” The practice professionals also lift public health to a higher level.

The councillor says that this Academic Collaboration is particularly important for a region like South Limburg. “The region is characterised by a large measure of social inequality and is also known as unhealthy. To tackle these problems, you need more than an information campaign on healthier living. You need to be aware of cause and effect. You need

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to know which instruments to use and what their impact will be. These are questions practising professionals and public servants alike need to ask, and for this, you need to work together with the academic community. Only then can well-founded answers be found for questions on why something is or isn't working. This is also important for administrators, because they constantly need to justify their actions."

Costongs emphasises that "in addition to checking existing policies, this cooperation can also be used for the development of new policies". He feels that in this region especially it's important that this cooperation is encouraged by the Academic Collaborative Centre. "The cooperation between municipalities and the academic community in this region does not yet come naturally, as the University is still so young here."

"In practice, much has changed since these new collaborative efforts were made, and the City Council is taking more initiative in working together with the academic community", says Costongs. Good examples come from the problems surrounding alcohol and drug addiction. "Although the city had all the necessary resources to deal with these problems, the approach was not successful. As a result, academic research was done in consultation, taking the perspective of the addict as a starting point. Gaining insight into the logic and behaviour of the addict led to effective methods." Another example of this collaboration is the mental health of the city's inhabitants, or that of the 'multi-problem' cases: despite the use of dozens of social workers in, for instance, a family, problems would still escalate. "We created a network organisation to deal with these problems, a network that was investigated for effectiveness."

Making a united effort in areas of policy, practice and science automatically results in applied scientific research, which can then be applied across the country. Costongs: "After all, this forces researchers to carry out research from the perspective of the patient, an organisation or, for instance, the business community". In addition, the question as to how the results can be turned into practice is also given central importance.

Costongs emphasises that he sees the current collaboration as a start, and that the Academic Collaborative Centre can ensure that this process continues. "Carrying out research is not a natural tendency for city councils. We are still led too much by everyday dynamics." According to Costongs, civil servants should carry out more research themselves, which would give them more affinity with academic research, and make them better at converting scientific results into local policy. "We should not see research as something that is merely outsourced to experts, but rather as a process that we are personally involved in. We should see research as an investment in ourselves. So far we have not yet completed this effort." CAPHRI can help the municipalities in South Limburg, Costongs concludes, "by influencing the public opinion on healthcare in one way or other, and in doing so contributing to the political agenda."

“Science for science’s sake is not how things are done at CAPHRI. Social relevance is the starting point. Better treatment of the patient is a natural result of such social impact thinking. Therein lies a challenge for CAPHRI. CAPHRI’s research is clearly socially relevant, as the results of the past years in patient care testify.”

# Appendices / Annex 16

## Overview: Societal Impact results (METIS)

### Cluster Primary Care

	2004	2005	2006	2007	2008	2009
Contribution to guidelines	6	7	7	6	1	3
Memberships to committees or advisory/editorial boards <sup>1</sup>	2	4	3	18	32	51
Media Coverage	3	1	3	46	24	36
Lectures and presentations for professionals, patients, public or policy makers	10	16	39	21	14	11
Instruments and Patents	-	-	-	1	-	3
Awards	-	-	-	-	5	6

<sup>1</sup> registration refereeships started in 2009.

**Cluster Innovation of Care**

	2004	2005	2006	2007	2008	2009
Contribution to guidelines, incl. laws	-	8	15	16	9	6
Memberships to committees or advisory/editorial boards <sup>1</sup>	15	11	19	68	69	151
Media Coverage	-	1	3	39	51	41
Lectures and presentations for professionals, patients, public or policy makers	29	45	59	68	182	184
Awards	1	1	1	-	6	10

**Cluster Public Health**

	2004	2005	2006	2007	2008	2009
Contribution to guidelines	-	3	3	9	-	1
Memberships to committees or advisory/editorial boards <sup>1</sup>	1	1	3	107	129	152
Media Coverage	-	-	4	37	29	15
Lectures and presentations for professionals, patients, public or policy makers	5	5	21	27	58	29
Instruments and Patents	-	-	-	-	2	-
Awards	-	2	-	2	2	2

## CAPHRI communication plan

### Background

**CAPHRI is a high quality graduate School, whose work is summed up by its main objective:**

***High-quality research and teaching focused on health care innovation, ranging from prevention to rehabilitation, leading to improvement of health of the population.***

CAPHRI is a large institute. The total number of CAPHRI staff is approximately 348 academic staff (166 fte) and 80 support staff (24 fte). On a yearly basis, CAPHRI publishes over 700 peer-reviewed articles, of which nearly 500 WI-1 publications with an average impact score that is higher than the average score in the relevant fields. The School scores high in attracting highly prestigious research funds (2e geldstroom): 48% (€2,620,656) of the total amount of funds received from NWO and ZonMW by the whole of the Faculty of Health, Medicine and Life Sciences (€5,504,182) was brought in by CAPHRI. Furthermore, CAPHRI received 5.672 million euro funding from contract research together with funding from industrial companies. In 2008 CAPHRI had 42 PhD theses defended successfully (approximately one third of total FHML). At the moment there are 132 PhD-students working in CAPHRI. The scientific output of CAPHRI has been excellent in the past years (its Cluster Primary Care is the highest scoring research line within the whole Maastricht UMC+ in terms of bibliometric scores, rating 1.9, indicating on average 90% more citations than the world average). Maastricht University invests nearly €4 million in 3 years to establish an international Centre of Excellence.

CAPHRI's multidisciplinary research projects are organized in research programmes, which are grouped in three Clusters: Primary Care, Innovation of Care, and Public Health. The aim of the School is to excel in scientific quality as well as in societal relevance.

An external review committee has evaluated CAPHRI in 2007 and concluded that the School comes across as a strong institute with a very good performance. In terms of assessment ratings, the overall score was very good to excellent. Especially Cluster 1 'Primary Care' scored extremely well and received the highest possible rating: excellent. The other clusters fell just short of this qualification, being rated as "very good", partially because of not fitting with the biomedical publication impact criteria; in terms of number of PhD's and

earning power however, they were excellent as well. The review committee also had one important recommendation: the visibility of the School and its researchers needs to be enlarged. This requires a clear and professional Public Relations policy.

### **CAPHRI's position within MUMC+ and Maastricht University: consequences for branding**

CAPHRI is one of 5 Schools within the recently (2008) established Maastricht UMC+. The prominent position of Public Health and Primary Care is crucial to the distinctive profile adopted by Maastricht UMC: an approach that does not limit itself to specialized medicine, but adopts an integrated approach to the entire spectrum of health and disease. In addition to recovery and follow-up care, it also includes health promotion and disease prevention in relation to care, education and research.

CAPHRI, as indeed all Schools within the FHML/MUMC+, find themselves in quite a complex situation in terms of their position in the organizational structure. Maastricht University is still their mother institute for their research and educational work, but at the same time the Schools belong to the newly established Maastricht UMC+. Moreover, CAPHRI's integrated approach to the entire spectrum of health and disease means that its activities are not limited to the clinic alone, which makes its position within Maastricht UMC+ indispensable for the UMC's distinctive profile, but at the same time quite complex.

This situation makes the subject of branding very difficult. The Executive Board of Maastricht University feels very strongly about joint branding for all its faculties and schools, including the FHML schools. As from this year onwards CAPHRI should adapt to the so-called house-style of Maastricht University, in which every school is allowed a strong position with an 'A-brand'. However, all signs point into the direction of a joint MUMC+ branding strategy for all its Schools in the near future. The vice-dean of the FHML has been invited by the MUMC+ Board to think about a strong branding strategy for the UMC as a whole. All schools, including CAPHRI, will be expected to follow the MUMC+ branding style. It may be clear that the timing for designing a

strong CAPHRI branding strategy as part of either/both Maastricht UMC+ and/or Maastricht University is rather complicated. However, CAPHRI cannot wait for political decisions around this subject at the level of the UMC and the university to be made. We have to move now. As was pointed out CAPHRI needs to be visible and recognizable in order to survive in a business-oriented world where there is huge competition to acquire research funding and commercial contracts. Moreover, the next external review of CAPHRI will take place in 2010. By this date CAPHRI has to show what has been done with the recommendation of the former evaluation to become more visible as a School.

### **Communication Strategy Objectives**

The key components of an effective communication strategy will be careful targeting, clear messages, supported by sound evidence, and use of appropriate media - website, workshops and conferences, research papers, press, and TV. It is important that the messages and media used fit with the target groups, with the need to carefully consider the messages used to target each group and how these can most effectively be put across.

Perhaps even more important than carefully designing a communication strategy to the outside world, it is to create a situation in which all CAPHRI-researchers are proud to be working for CAPHRI and will enthusiastically spread that message in all one-to-one contacts. This requires a solid internal communication strategy (which also implies recognizable organisational goals for all internal stakeholders).

The overall objective of the communication strategy is to support CAPHRI's main objective (improving overall health and health care) and make this visible to the outside world. In its broadest sense, CAPHRI offers high quality research in an area that touches the lives of every man, woman and child because it is fundamental to their day-to-day existence. The research runs the gamut from prevention through after-care and rehabilitation and looks at healthcare delivery from the perspective of patients, professionals and society as a whole. CAPHRI basically works with people and for people. Its success is dependent on a positive image among its key stakeholders and the general public. The stakeholders

may include interest groups as divergent as GPs, nurses, school teachers, research networks, the industry, funding agencies, etc.

### **The key aims of the communication strategy of CAPHRI are to:**

- Influence policies and practice of (prestigious) funding organizations, such as NWO, KNAW, EU and the industry to make sure that public health and primary care is on the agenda and high quality research in this area is immediately associated with CAPHRI;
- Attract top-researchers and high-potentials who will want to be a part of this exciting work-environment;
- Inform funding organizations and the industry of the contribution evidence-based well-designed research programmes from a high quality institute such as CAPHRI can make to improving the lives of substantial numbers of people;
- Inform key stakeholders outside of MUMC+ and Maastricht University, on a national and an international level to ensure linking interventions, cooperation and ensuring complementarity;
- Inform key stakeholders within MUMC+ and Maastricht University;
- Inform the general public in the Netherlands about the valuable work CAPHRI is doing and how this can benefit them.

The first of these aims is crucial for the survival of CAPHRI: the need to influence policy and investment decisions within prestigious funding organizations is critical to acquire more research funding.

Effective communication needs to be based on sound evidence. In CAPHRI there is an emphasis on the on-going collection and analysis of quantitative and qualitative information on outcomes and impacts of research projects so that lessons can be learnt and communicated. Translating theory into tailored solutions to societal health problems and developing instruments and tools for sustainable and effective treatments are key aspects of CAPHRI's work. Thus, CAPHRI has a lot of potential in terms of societal impact.

## **The Communication Strategy**

The communication strategy should be developed in a manner that is fully consistent with supporting the main objective of the School. As a first step, the overall objective of the School should be clearly stated – in this case that CAPHRI is about improving public health and primary care. To make sure that the message will stick in people's minds, we would like to create a slogan that could be used in all communications.

### **Slogan**

At the CAPHRI conference in March this year, several slogans were suggested:

- Working for better health
- Care for better health
- People for better health

These slogans could be discussed in a focus group interview with some important stakeholders.

### **Key messages**

Based on the key aims, key messages should be formulated, for the different target groups. These messages could also be checked in a focus group interview with key stakeholders.

### **Key stakeholders**

CAPHRI management should conduct a stakeholder mapping, and identify who are natural allies and supporters of this objective and which stakeholders may stand in opposition. Additional groups may be added based on the complexities of the stakeholder analysis.

### **Branding**

The Strategic Consultative Body ('Strategisch Overleg') of the FHML has officially decided (in its meeting of 02-06-2009) that all FHML Schools should adhere to the Maastricht University branding-style. This means that on all communications, 'Maastricht University' needs to be mentioned and consequently the name of the School. Within the FHML the Schools are allowed to use their own logo. CAPHRI prefers to refer to its School simply as 'CAPHRI' and not as 'CAPHRI: School for Public Health and Primary Care', as this is a rather complicated name<sup>1</sup>.

### **Branding and affiliation**

In our communication strategy it is essential that all CAPHRI researchers affiliate themselves with CAPHRI in any publication or public appearance. All publications (of any kind), posters, brochures, PhD-theses, business-cards, websites, press-releases and powerpoint-presentations should carry both the CAPHRI brand name and 'Maastricht University'. Furthermore, in public appearances (TV, radio) or when interviewed for a newspaper, CAPHRI researchers should immediately mention the name CAPHRI after they have told the interviewer that they work for Maastricht University, to make their affiliation with CAPHRI clear. This way the CAPHRI-brand will become recognizable for anybody.

We strive for this to be something that nobody needs reminding of, because people are proud to be part of this organisation and to be able to use its brand name and logo. However, to make people's life easier, the CAPHRI management office will provide all researchers with the right formats on their computer. Whenever a researcher wants to make a powerpoint presentation, he or she will automatically have to use the CAPHRI format. The same goes for memo's, press-releases, reports, etc. Furthermore, a media-training should be offered to CAPHRI-researchers, in which attention will be paid to their affiliation with CAPHRI.

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<sup>1</sup> In 2007 the review committee recommended changing the name of the School into something simpler, recognizable and lasting, which does justice to the three underlying clusters. For PR-reasons it would be good to include 'Maastricht' in the name.

The overall objective of the communication strategy is to support CAPHRI's main objective *improving overall health and health care* and make this visible to the outside world. In its broadest sense, CAPHRI offers high quality research in an area that touches the lives of every man, woman and child because it is fundamental to their day-to-day existence.



# Colophon

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