Intern. J. of Research in Marketing 25 (2008) 229–233

Contents lists available at ScienceDirect

Intern. J. of Research in Marketing

journal homepage: www.elsevier.com/locate/ijresmar

Health and marketing: The emergence of a new field of research ☆

Stefan Stremersch *

Department of Marketing, Erasmus School of Economics, Erasmus University Rotterdam, Rotterdam, The Netherlands
Department of Marketing, Fuqua School of Business, Duke University, Durham, United States

1. Introduction

Periodically, no matter the discipline, new fields of research emerge. Marketing is no different. A marketing journal's calling should be to foster new fields of research, as they may prove to be influential in the long run (Stremersch & Lehmann, 2007, 2008). Research fields can be defined by their topic (for example, customer relationship management — e.g., Gupta & Zeithaml, 2006), method (for example, marketing dynamics — e.g., Leeflang et al., 2009), or application area (for example, high tech marketing — e.g., John, Weiss, & Dutta, 1999). Health and Marketing is starting to gain firm ground as a new research field defined by its application area.

The number of papers on Health and Marketing submitted to marketing journals has been increasing rapidly over the last five years. Mainstream marketing conferences feature special sessions on health marketing. The increasing expertise on Health and Marketing among faculty, combined with high societal demand, has induced schools to offer healthcare marketing classes to students, dual affiliations across economics, psychology, or business, and medicine to faculty, and new Health and Marketing chairs to faculty.

Common concerns in the establishment of a new research field include the following questions. First, is the field relevant? Second, does the field present us with new questions that require new knowledge development? Third, does the field yield knowledge that can be generalized? These questions and the rise of research on Health and Marketing motivated the *International Journal of Research in Marketing* and the *Marketing Science Institute* to assemble a special issue on the topic. This special issue aims to stimulate more research in this area, relieve some of the tension between reviewers and authors that characterizes the birth of any new research field, and induce young scholars to consider it as an area in which they might want to specialize.

Building upon the papers published in this special issue, I will position the field of Health and Marketing, provide examples of questions that can be addressed, and cite data opportunities. I will then address common concerns other scholars express over Health and Marketing research.

2. Health and marketing: scope, research questions and data

2.1. Scope of the field

Given that this research field is defined by its application, its scope can be best understood from the perspective of the healthcare value chain (Stremersch & Van Dyck, 2008, adapted from Burns, 2005). The healthcare value chain (Fig. 1) consists of a healthcare delivery chain (from right to left) and a healthcare payment chain (from left to right). The healthcare delivery starts with therapy producers, who are commonly referred to as the life sciences industry (Stremersch & Van Dyck, 2008).

At its core, the life sciences industry is composed of the pharmaceutical, biotechnology, and (therapeutic) medical devices industries. At its boundaries are the food (e.g., nutraceuticals), high tech (e.g., medical imaging) and cosmetics industries (e.g., cosmeceuticals). Product intermediaries are typically referred to as the "channel" in marketing literature. Care providers are central in the healthcare value chain.

The care provided in the chain is paid for by employers, government, and/or consumers (who, if afflicted with a disease, are referred to as patients by the medical profession). Often, there is co-payment by several of these actors, where each pays a certain share. Especially in systems where the government is not the main payer, there is a substantial financial intermediary industry composed of HMO's and insurance companies.

The scope of the Health and Marketing field can now be bounded as any phenomenon contained in the marketing domain, at any position in the healthcare value chain.

2.2. Research questions

The papers in this special issue provide some great examples of questions across this domain, most of which have strong public policy implications (Table 1). Half of the papers address issues on the producer side of the healthcare value chain. Kremer, Bijmolt, Leeflang, and Wieringa (2008) find that effectiveness of promotional expenditures by pharmaceutical firms are modest in size and show high heterogeneity across studies. They explain that part of this heterogeneity is driven by the promotional instrument, the disease category studied, and the study's design, such as the variables included and corrections for endogeneity. Gonzalez, Sismeiro, Dutta and Stern (2008) study generic entry upon patent expiration, which is a theme idiosyncratic to the life sciences industry. They examine the diffusion of generics and show how competition in a drug category, beyond the molecule that goes generic, is affected by such generic entry.

☆ This editorial benefitted from the comments of Nuno Camacho, Josh Eliashberg, Sonya Grier, Amir Heiman, Eelco Kappe, Peter Leeflang, Don Lehmann, Vikas Mittal, Eitan Muller, Isabel Verniers, and Stefan Wuyts.

* Corresponding author. Department of Marketing, Erasmus School of Economics, Erasmus University Rotterdam, Rotterdam, The Netherlands.
E-mail address: Stremersch@few.eur.nl.

0167-8116/$ – see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.ijresmar.2008.09.002

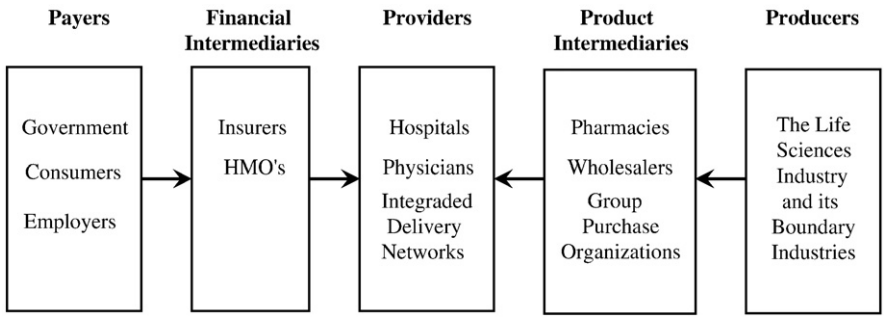

Fig. 1. The Healthcare Value Chain (Stremersch & Van Dyck, 2008, adapted from Burns, 2005).

While Kremer et al. (2008) and Gonzalez et al. (2008) mostly study promotion of life science therapies to physicians, Grewal, Chakravarty, Ding and Liechty (2008) and Wuyts and Dutta (2008) study innovation decisions by life science firms. Grewal et al. (2008) find that shareholders value drug development pipelines primarily based on projects in their final development stage and emphasize pipeline breadth, rather than depth. In contrast, for a minority of small firms (presumably biotech start-ups), investors mostly value portfolio depth in stage 2 projects. Wuyts and Dutta (2008) study license exchange networks. They find that while firms may obtain an increasing number of licensing deals from public information disclosure, there is a dark side to publicly disclosing too much information. At the same time, board interlocks – a more socially embedded form of disclosing information – do not show such a dark side. An increasing number of board members in common with other firms generate an increasing number of licensing deals. They suggest, however, that the increase in exchange opportunities for a firm from an interlocked board may come at the same time with less favorable exchange opportunities.

Vakratsas and Kolsarici (2008) attempt to characterize the diffusion pattern of new prescription drugs. They raise the interesting viewpoint that pharmaceutical diffusion cycles may undergo a dual market phenomenon. They conceptually connect this dual market phenomenon to physicians' adoption of new drugs in two stages: (1) prescriptions for patients with severe health problems for whom demand has accumulated in the absence of a suited therapy, and (2) prescriptions for patients with mild health problems.

In the hospital environment (providers in the healthcare chain), Govind, Chatterjee, and Mittal (2008) develop a spatial model to aid in allocation decisions of available hospital resources to different disease types.

On the consumer behavior side (the consumer is a payer or purchaser of health care), content of the special issue reflects the common application of health behavior in the food context. Food is a boundary industry of the life sciences industry on the producer side in the healthcare value chain. The special issue presents a fine mix of contributions to this literature, including a quantitative paper using secondary data (Prasad, Strijnev, & Zhang, 2008), a quantitative paper using experimental data (Heiman & Lowengart, 2008) and a behavioral paper using experimental data (Carvalho, Block, Sivaramakrishnan, Manchanda & Mitakakis, 2008). Prasad et al. (2008) show that health-conscious households constitute 18% of the market and that the more health conscious a household is, the less price sensitive it is. Heiman and Lowengart (2008) show that, in the case of health hazards in foods, consumers reduce the perception of the affected health attribute, and simultaneously elevate the importance of this attribute for the affected product. Carvalho et al. (2008) examine consumers' risk perceptions of food-borne contamination and their intention to reduce consumption of this food. They found that consumers are more concerned by the threat of a likely food-borne illness if the contamination occurs in a culturally similar location, regardless of physical or geographical proximity. However, when the event is highly personally relevant, consumers feel too threatened, which leads to message denial and a reversal of the facilitating effects of cultural similarity.

Raghubir (2008) continues in the health risk research stream and examines how base rate information affects perceptions of health risk. People's estimates of risk are higher, the smaller the scale of the numerator, the smaller the size of the denominator and the closer the base rate is to the subject (e.g., domestic versus international), even as the base rate is constant.

Barg and Grier (2008) add to the methodological mix of the special issue. In the tradition of cognitive anthropology, they conduct semi-structured interviews to identify a cultural model for breast cancer among low-income African-American women with and without breast cancer. They find that the cultural model for breast cancer held by African-American women – that breast cancer is stigmatizing and shameful – contrasts sharply with the marketed model for breast cancer portrayed in breast cancer communication – (white) women with breast cancer who can and must "fight and win." The dissonance between the two models renders breast cancer prevention and early detection messages less salient for African-American women.

The special issue is a clear reflection of the work done so far on Health and Marketing. Most of the emphasis has been on either the extreme right side (in particular, the life sciences industry), or the extreme left side (in particular, the consumer side). The former has been increasingly studied by marketing modelers (see early reviews by Manchanda et al., 2005 and Stremersch & Van Dyck, 2008), and the latter has been increasingly studied by behavioral scholars (see early reviews by Keller & Lehmann, 2008 and Menon, Raghubir, & Agrawal, 2008). Providers, mostly physicians, have been studied in their connection to the producer side, for example, their sensitivity to promotional efforts (e.g., Kremer et al., 2008). Although research has uncovered several interesting phenomena, the cited reviews offer many new directions for research in these areas that are still in their infancy.

Additionally, previous research only partially covers payers, providers and producers. For instance, most scholars have ignored the role of employers or governments, for example, through regulation (for an exception, see Stremersch & Lemmens, in press) or payer-producer negotiations on market access for new treatments and treatment prices. Research on regulation can present a fruitful intersection between the marketing and health economics literature (for a review, see Drummond, Jönsson, & Rutten, 1997). Similarly, prior research on physician behavior has mostly overlooked medical decision-making by hospitals or specialists. Furthermore, this prior research has not extensively studied behavioral biases in physician decision-making. Finally, studies of the producer side mostly focus on pharmaceuticals, while the biotechnology and especially medical devices industries remain largely unexamined. Among the boundary industries, research attention seems to be focused on foods, rather than on cosmetics or high tech industries (Luce & Kahn (1999, 2003, 2006) work on mammography provides excellent counterexamples).

At the same time, research on other areas of the healthcare value chain is sparse, but nonetheless it is highly relevant. With more

Table 1
The papers published in this special issue

Authors	Title	Research setting	Public policy implications	Marketing decision affected	Type of data
Sara T.M. Kremer, Tammo H.A. Bijmolt, Peter S.H. Leeflang and Jaap E. Wieringa	Generalizations on the effectiveness of pharmaceutical promotional expenditures	Producers (Pharmaceuticals), Providers (Physicians)	Yes	Promotion	Prior published studies
Jorge Gonzalez, Catarina Sismeiro, Shantanu Dutta and Philip Stern	Can branded drugs benefit from generic entry? The role of detailing and price in switching to non-bioequivalent molecules	Producers (Pharmaceuticals), Providers (Physicians)	Yes	Promotion	U.K. panel of physicians
Rajdeep Grewal, Anindita Chakravarty, Min Ding and John Liechty	Counting chickens before the eggs hatch: Associating new product development portfolios with shareholder expectations in the pharmaceutical sector	Producers (Pharmaceuticals)	No	Innovation Management	Pharmaprojects data on new drug development pipelines
Stefan Wuyts and Shantanu Dutta	Licensing exchange – insights from the biopharmaceutical industry	Producers (Pharmaceuticals/ Biotech)	No	Innovation Management	Recap database on interfirm agreements in biopharma
Demetrios Vakratsas and Ceren Kolsarici	A dual-market diffusion model for a new prescription pharmaceutical	Producers (Pharmaceuticals), Providers (Physicians)	No	Innovation Management	IMS Health data on prescriptions and marketing efforts; A.C. Nielsen data on DTC
Rahul Govind, Rabikar Chatterjee, and Vikas Mittal	Timely access to health care: Customer-focused resource allocation in a hospital network	Providers (Hospitals)	Yes	Location, Positioning	California disease incidence data, L.A. hospital location and capacity data, U.S. census data
Ashutosh Prasad, Andrei Strijnev, and Qin Zhang	What can grocery basket data tell us about health consciousness?	Producers (Boundaries = Foods), Payers (Consumers)	Yes	Segmentation	Scanner panel data in major grocery store in Southwest U.S.
Amir Heiman and Oded Lowengart	The effect of information about health hazards on demand for frequently purchased commodities	Producers (Boundaries = Foods), Payers (Consumers)	Yes	Communication	Field experiment in meat dept. of big supermarket chain
Sergio W. Carvalho, Lauren G. Block, Subramanian Sivaramakrishnan, Rajesh V. Manchanda and Chrissy Mitakakis	Risk perception and risk avoidance: The role of cultural identity and personal relevance	Producers (Boundaries = Foods), Payers (Consumers)	Yes	Communication	3 lab experiments with Canadian undergraduate students
Priya Raghubir	Is 1/10 > 10/100? The effect of denominator salience on perceptions of base rates of health risk	Payers (Consumers)	Yes	Communication	4 lab experiments with undergraduate students in a U.S. business school
Frances K. Barg and Sonya A. Grier	Enhancing breast cancer communications: A cultural models approach	Providers (Physicians, Hopsitals), Payers (Consumers)	Yes	Communication	Semi-structured interviews with 49 low income African American women, of which 15 had and 34 did not have breast cancer

treatments going generic or over-the-counter, pharmacies may have a bigger say in treatment decisions. Similarly, the influence of financial intermediaries over treatment choices seems to have increased over time. Moreover, integrative research across the entire healthcare chain, including all decision-makers, is largely absent, despite its obvious relevance. An example would be research on provider-patient relationships and their joint decision-making (Ding & Eliashberg, 2008; Venkataraman & Stremersch, 2007). With DTCA expenditures on the rise in the U.S. and word-of-mouth becoming more intense around the world, patients increasingly request specific treatments, which may affect doctors' decision-making. Decisions in which the patient participates may yield better health outcomes, which in itself may vary across cultures or disease types.

This special issue provides excellent examples of research in this area, but at the same time, it leaves many questions unanswered. The Health and Marketing area is probably one of the richest in unstudied phenomena that the marketing discipline has ever seen in its history.

2.3. Data

One of the main drivers of the Health and Marketing field is data availability, not only in terms of quantity, but also in quality. The cause thereof lies in the high economic stakes of the application area and the desire of governments to monitor it for public health and safety concerns. Table 1 shows data used by papers in the special issue.

In studies on the producer and provider side, scholars often use secondary data. IMS Health (Midas) and Wolters Kluwer are the major providers of sales data. IMS Health and Verispan are the main providers of physician detailing and prescription data, which often discriminates between new prescriptions and repeat prescriptions. Data on financial intermediaries, such as medical plan data, can be obtained from IMS Health (PlanTrak) and MediMedia. Pharmaprojects and IMS Health (R&D Focus) can provide data on innovation pipelines. Recap holds excellent data on interfirm agreements in the biotech and pharmaceutical industries.

Governmental and international agencies also can provide reliable information that can be merged with the above sources. A good, but less known, example is URCH, which provides information on the regulatory environment in global markets. On the clinical profile of treatments, one can use data from FDA and EMEA (Europe's FDA counterpart) for approval histories, or the U.K.'s NICE for independent clinical reviews of available treatments. Organizations such as WHO, OECD and World Bank offer general descriptions of the health environment in member states. Individual governments often also provide excellent data on the clinical environment (e.g., Govind et al., 2008).

Other sources with which marketers are already acquainted may also contain health-related data. For instance, AC Nielsen tracks DTC data, as does TNS Media. Also, scanner panel data can be used in innovative ways to answer many health and marketing questions (e.g., Prasad et al, 2008).

For behavioral work, scholars often use laboratory and real-life experiments. Especially if the research setting is highly emotional (as is common in health care), real-life experiences and experiments will be more externally valid than laboratory experiments. The studies by Heiman and Lowengart (2008) and Barg and Grier (2008) are excellent examples of such studies.

Surprisingly, we have not seen much survey work – a common marketing research method – being conducted in this area so far. Nonetheless, with restrictions on secondary data with respect to financial intermediary behavior and the physician-provider relationship, it is only a matter of time before survey research is more extensively used.

In general, considering that the discussion above was merely a partial overview, it is safe to say that data are readily available in this area.

3. Common concerns on health and marketing as a new field

This section addresses common concerns expressed by scholars, often with skepticism, on the recognition of Health and Marketing as a new field.

3.1. Is the field relevant?

A field can be relevant to many stakeholders, such as those involved with public policy, firms, or individual consumers. Health and marketing is highly relevant to all three of these groups.

With an increasingly aging population in developed countries, health has become a pressing public policy issue. Many developed countries now spend around 15% of their GDP on health. The OECD has estimated that the annual increase in per-capita spending on health among its member countries has outstripped overall economic growth by approximately 70% over the last three decades. Worldwide spending on pharmaceuticals, the largest component of the life sciences industry, was estimated in 2005 to be $565.9 billion, growing at 5.2% and 7.1% annually in the United States and Europe, respectively (EFPIA, 2006). Additionally, many diseases are contagious. Thus, individuals' diseases or unhealthy behaviors may not only affect societal budgets for health, they may also directly affect the health of other members of society. Thus, government has a direct interest in successfully communicating health risk information to contain diseases (e.g., Raghubir, 2008), especially if they are highly infectious.

The relevance of research questions in the Health and Marketing field to firms can easily be appreciated if one considers that life sciences firms often spend a large amount of their revenues on promoting their therapies to consumers (DTCA), providers (detailing), and intermediaries. For example, the top 10 pharmaceutical firms spend 27% of their revenues on marketing (Kremer et al., 2008). Therapy creation is also very costly. In pharmaceuticals, a new drug costs an average of $800 million to $1 billion, with only 1 in 50,000 drug candidates eventually reaching the market (Grewal et al., 2008).

To individual consumers, marketing decisions in the healthcare value chain may affect their access to care. Govind et al. (2008) shows that hospital location and specialization may cause capacity shortages, negatively affecting healthcare access for consumers, often in weak socio-economic areas. The insights we develop may also be of direct relevance in improving consumers' health conditions. For example, a better understanding of the shared mental model of breast cancer among consumer groups may yield more effective communication, consequently yielding lower mortality rates (Barg & Grier, 2008).

3.2. Does the field present us with new questions in need of new knowledge development?

Health and Marketing is not only relevant, it also raises important new questions. For instance, the 3P-triangle – patient, provider and payer – that jointly decides on treatment choice is unique, yielding unique questions (e.g., Ding and Eliashberg, 2008). The consumer faces a high level of uncertainty and imperfect information in a context in which wrong decisions have an important impact on their well-being. Additionally, the importance and specificity of the regulatory environment generates new questions on issues such as patent expiration and life cycle extension (Gonzalez et al., 2008), the clinical review process for new treatments and the high failure risk in new treatment development (Grewal et al., 2008; Wuyts & Dutta, 2008), and the influence of regulation and health infrastructure on new drugs' sales growth and launch patterns (Stremersch & Lemmens, in press).

Questions transplanted from other fields yield new answers. Pharmaceutical promotion is one good example. While skeptics argue that there is nothing new to studying promotional effectiveness, the health context is unique and may yield unique responsiveness, or

lack thereof (Kremer et al., 2008). Causes may lie in the gate-keeping function of the physician, the very high level of firm expenditures on promotions, or its regulation. Moreover, the moderators of such effectiveness may be specific to the health context (such as drug effectiveness and side effects in Venkataraman & Stremersch, 2007).

The Health and Marketing field is also characterized by an intrinsically unstable environment. Changing regulation, new discoveries, and new health treatments continuously appear and give rise to new questions. For example, research has developed and will continue to develop on the following topics: the adoption of TRIPS by developing countries and its consequences, the co-operation between pharmaceutical companies and biotech companies, and the promise of targeted treatments.

3.3. Does the field yield knowledge that can be generalized?

Some scholars in our field are greatly concerned with research findings being generalizable. By this, they refer to the universal character of the laws we discover. The laws of physics, like the law of gravity, are probably perceived as close to the ideal.

However, in the social sciences, very few, if any, of these general laws exist. Many scholars can testify to this through the contingency studies they have undertaken (Kremer et al., 2008, in this issue, is an excellent example). In fact, even physical laws are only valid under clearly specified boundary conditions. Typical boundary conditions in the social sciences, and in marketing in particular, often relate to the cultural setting (i.e., country) and the industry.

Therefore, the primary goal of scholarship in marketing perhaps should not be to derive theories that can be generalized perfectly to all situations. Rather, the goal should be to develop theories and reveal findings with an explicit reference to context (Steenkamp, 2005). Scholarship in Health and Marketing can certainly achieve that goal (see Gonzalez et al., 2008 for an excellent example). In fact, the previous discussion in this paper lists some of these contextual bounds that may apply to findings in this field. Requiring the definition of contextual bounds on research findings as a caveat to generalizing research findings allows one to match the demands of scientific inquiry with the development of specialized knowledge in a particular field, even if the field is defined by its application.

Thank you

IJRM owes a special word of gratitude to the many people that helped to make this special issue a success. First, many esteemed scholars delivered high-quality reviews or acted as an AE. I remain in awe of the quality of your reports and the speed with which they were delivered.

Second, this special issue could not have existed without authors submitting their work to the journal. We received a total of 55 submissions for this issue. Authors had to meet a very tight timeline – the first submission was due September 15, 2007 and the final version of the paper needed to be accepted by August 15, 2008 – and had to deal with a rather pushy editor (the average turnaround was 43 days, all inclusive). Nevertheless, we only lost one paper, because it was unable to meet our timeline.

Third, Cecilia Nalagon excellently managed the process, which was vital given the tight timeline and my own organizational flaws. Thanks to her, we could meticulously follow the timeline we had set originally.

Finally, IJRM owes gratitude to the Marketing Science Institute and, in particular, Russ Winer and Ross Rizley, who were immediately supportive of co-sponsoring the issue. I hope that all stakeholders feel that this special issue serves its purpose well. Health and Marketing is a fascinating field that will have more of an impact on society than any field in marketing will ever have, with plenty of novel questions to address. Enjoy immersing yourself in the research presented in this issue!

References

Barg, F. K., & Grier, S. A. (2008). Enhancing breast cancer communications: a cultural models approach. *International Journal of Research in Marketing*, *25*(4).

Burns, L. R. (2005). *The Business of Healthcare Innovation.* Cambridge, U.K.: Cambridge University Press.

Carvalho, S. W., Block, L. G., Sivaramakrishnan, S., Manchanda, R. V., & Mitakakis, C. (2008). Risk perception and risk avoidance: the role of cultural identity and personal relevance. *International Journal of Research in Marketing*, *25*(4).

Ding, M., & Eliashberg, J. (2008). A dynamic competitive forecasting model incorporating dyadic decision-making. *Management Science*, *54*(4), 820–834.

Drummond, M., Jönsson, B., & Rutten, F. (1997). The role of economic evaluation in the pricing and reimbursement of medicines. *Health Policy*, *40*(3), 199–215.

EFPIA (2006). *The Pharmaceutical Industry in Figures.* Brussels, Belgium: European Federation of Pharmaceutical Industries and Associations.

Gonzalez, J., Sismeiro, C., Dutta, S., & Stern, P. (2008). Can branded drugs benefit from generic entry? The role of detailing and price in switching to non-bioequivalent molecules. *International Journal of Research in Marketing*, *25*(4).

Govind, R., Chatterjee, R., & Mittal, V. (2008). Timely access to health care: customer-focused resource allocation in a hospital network. *International Journal of Research in Marketing*, *25*(4).

Grewal, R., Chakravarty, A., Ding, M., & Liechty, J. (2008). Counting chickens before the eggs hatch: associating new product development portfolios with shareholder expectations in the pharmaceutical sector. *International Journal of Research in Marketing*, *25*(4).

Gupta, S., & Zeithaml, V. (2006). Customer metrics and their impact on financial performance. *Marketing Science*, *25*(6), 718–739.

Heiman, A., & Lowengart, O. (2008). The effect of information about health hazards on demand for frequently purchased commodities. *International Journal of Research in Marketing*, *25*(4).

John, G., Weiss, A. M., & Dutta, S. (1999). Marketing in technology-intensive markets: toward a conceptual framework.*Journal of Marketing*, *63*, 78–91 (special issue).

Kahn, B. E., & Luce, M. F. (2003). Understanding high stakes consumer decisions: mammography adherence following false-alarm test results. *Marketing Science*, *22*(3), 393–410.

Kahn, B. E., & Luce, M. F. (2006). Repeated-adherence protection model: I'm OK, and it's a hassle. *Journal of Public Policy and Marketing*, *25*(1), 79–89.

Keller, P. A., & Lehmann, D. R. (2008). *Designing effective health communications: A meta-analysis of experimental results.* Working paper.

Kremer, S. T. M., Bijmolt, T. H. A., Leeflang, P. S. H., & Wieringa, J. E. (2008). Generalizations on the effectiveness of pharmaceutical promotional expenditures. *International Journal of Research in Marketing*, *25*(4).

Leeflang, P. S. H., Bijmolt, T. H. A., Van Doorn, J., Hanssens, D. M., Van Heerde, H. J., Verhoef, P. C., et al. (2009). Creating lift versus building the base: current trends in marketing dynamics. *International Journal of Research in Marketing*, *26*(1).

Luce, M. F., & Kahn, B. E. (1999). Avoidance or vigilance? The psychology of false-positive test results. *Journal of Consumer Research*, *26*(3), 242–259.

Manchanda, P., Wittink, D. R., Ching, A., Cleanthous, P., Ding, M., Dong, X., et al. (2005). Understanding firm, physician, and consumer choice behavior in the pharmaceutical industry. *Marketing Letters*, *16*(3–4), 293–308.

Menon, G., Raghubir, P., & Agrawal, N. (2008). Health risk perceptions and consumer psychology. In C. Haugtveldt, P. Herr, & F. Kardes (Eds.), *Handbook of Consumer Psychology* (pp. 981–1010). Lawrence Erlbaum and Associates.

Prasad, A., Strijnev, A., & Zhang, Q. (2008). What can grocery basket data tell us about health consciousness? *International Journal of Research in Marketing*, *25*(4).

Raghubir, P. (2008). Is 1/10 > 10/100? The effect of denominator salience on perceptions of base rates of health risk. *International Journal of Research in Marketing*, *25*(4).

Steenkamp, J. B. E. M. (2005, October). Moving out of the U.S. silo: a call to arms for conducting international marketing research. *Journal of Marketing*, *69*, 6–8.

Stremersch, S., & Lehmann, D. R. (2007). Editorial. *International Journal of Research in Marketing*, *24*(1), 1–2.

Stremersch, S., & Lehmann, D. R. (2008). 25 years of IJRM: reflections on the past and the future. *International Journal of Research in Marketing*, *25*(1), 143–148.

Stremersch, S. & Lemmens, A., (in press). Sales growth of new pharmaceuticals across the globe: The role of regulatory regimes. Marketing Science.

Stremersch, S., & Van Dyck, W. (2008). *Marketing of the life sciences: A new framework and research agenda for a nascent field.* Working paper.

Vakratsas, D., & Kolsarici, C. (2008). A dual-market diffusion model for a new prescription pharmaceutical. *International Journal of Research in Marketing*, *25*(4).

Venkataraman, S., & Stremersch, S. (2007). The debate on influencing doctors' decisions: are drug characteristics the missing link? *Management Science*, *53*(11), 1688–1701.

Wuyts, S., & Dutta, S. (2008). Licensing exchange – insights from the biopharmaceutical industry. *International Journal of Research in Marketing*, *25*(4).