

# A social marketing strategy to promote preconception care: development of the Woke Women strategy

Preconception  
care

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## Abstract

**Purpose** – Exposure to unhealthy lifestyle behaviours before pregnancy affects the health of mothers and their (unborn) children. A social marketing strategy could empower prospective parents to actively prepare for pregnancy through preconception care (PCC). This study aims to describe the development of a PCC social marketing strategy based on the eight-point benchmark criteria for effective social marketing and to clarify the concept of using social marketing for health promotion purposes.

**Design/methodology/approach** – An extensive literature search was carried out regarding the needs of the target population and PCC behavioural goals, leading to the development of a bottom-up, ambassador-driven, communication concept.

**Findings** – In-depth insights of all benchmarks were analysed and incorporated during the development process of a new PCC social marketing strategy, with a special focus on the application of the “Health Belief Model” (Benchmark 3) and “the Four-P framework” (Benchmark 8). Evidence-based preconceptional health information is our product, for a low price as the information is freely attainable, promoting a message of overall women’s health and online or through a consult with a health-care provider as the appropriate place. This formative research resulted in the development of the Woke Women® strategy, empowering women to actively prepare for pregnancy.

**Originality/value** – Developing a social marketing strategy to enhance actively preparing for pregnancy shows potential to encourage prospective parents to adopt healthier preconceptional lifestyle behaviours and can therefore improve the health of future generations.

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**Author contribution:** VYFM, AF, MP and MPHK contributed to the study design, conceptualisation and interpretation of the research. VYFM conducted the literature search and prepared the first draft of the manuscript. LMGB contributed to the manuscript with her expertise in social marketing. WvA is responsible for the conceptualisation of the social marketing strategy and also contributed to the manuscript. All authors revised the manuscript critically for important intellectual content and made a substantial contribution to conception and design. All authors have given final approval of the version to be published.

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**Keywords** Preconception care, Social marketing, Pregnancy preparation, NSMC benchmarks, Female empowerment

**Paper type** Research paper

## Introduction

There is growing evidence that exposure to unhealthy lifestyle behaviours and social risk factors before or during pregnancy affects the future health of mothers, their offspring and future generations (Temel *et al.*, 2013; de Graaf *et al.*, 2013). Improving lifestyle behaviours and early identification of risk factors through health-promoting activities (education, advice and general and social health assessment) are elements of preconception care (PCC) (Whitworth and Dowswell, 2009). While the effectiveness of PCC is widely evidenced, the uptake of PCC and the structural embedding of PCC in health-care settings remain inadequate (Rosman *et al.*, 2018). Previous literature shows several causes for these missed opportunities, e.g. the fact that pregnancy is not always planned, and the difficulty and continuous effort it takes to reach the target population as their wish to conceive is usually kept private (Elsinga *et al.*, 2006).

A suggested method to improve the delivery and uptake of PCC is a more consumer-oriented approach, e.g. with a social marketing strategy (Prue and Daniel, 2006; Lewis *et al.*, 2013). Social marketing is an emerging discipline since the 1970s when marketing strategies – then successful in selling products and services to consumers – were also used to promote socially beneficial ideas, attitudes and behaviours (Kotler and Zaltman, 1971). Social marketing is defined as “*the systematic application of marketing alongside other concepts and techniques, to achieve specific behavioural goals, for a social good*” (French and Blair-Stevens, 2007). Social marketing includes concepts from several fields as psychology and anthropology and contribute to positively influence people’s behaviour (Kotler and Zaltman, 1971). Evidence shows that social marketing is a promising tool for both improving health of an individual level, i.e. in improving diet, increasing exercise and tackling the misuse of substances like alcohol, tobacco and narcotics, as well as on wider environmental and policy levels, e.g. formal adoption of physical activity programmes by schools or policies on sugar taxes (Gordon *et al.*, 2006).

Several studies have aimed to implement PCC programmes, and some have successfully led to an improved level of knowledge regarding PCC and subsequent improvement of preconceptional lifestyle behaviours (Elsinga *et al.*, 2008; Poels *et al.*, 2018). Yet, these studies were not designed with a social marketing intervention and were less consumer-oriented. Previously developed mass media campaigns have aimed to inform their target population rather than to empower individuals, and their designs did not anticipate their target populations’ needs (Chau *et al.*, 2018). Hence, in collaboration with professional marketeers, local health-care providers and governmental stakeholders, we developed a social marketing strategy to empower Dutch women to actively prepare for pregnancy. The current paper aims to describe the development of this PCC social marketing strategy based on the eight-point benchmark criteria for effective social marketing and to clarify the concept of using social marketing for health promotion purposes.

## Methods

### *Social marketing benchmarks*

Social marketing uses many of the same techniques as commercial marketing, such as creating new products and services that meet the needs of a wide variety of people and avoiding a “one-size-fits-all” approach (Merritt, 2011). To describe social marketing’s key

principles, The National Social Marketing Centre (NSMC) has developed eight social marketing benchmark criteria (Merritt, 2011). These benchmarks (described in more detail in Table 1) focus on behaviour, customer orientation, theory, insight, exchange, competition, segmentation and method mix and are designed to ensure the quality of social marketing concepts and principles (Merritt, 2011). The last benchmark focuses on the “marketing mix”. This is a 4P framework in which “product”, “price”, “promotion” and “place” constructs are combined. The product of PCC addresses the content of PCC offered to the target population and elaborates on an individual’s PCC knowledge and awareness of the existence of PCC. The construct of price entails the barriers to use PCC (e.g. not fully planning a pregnancy). The third “P” stands for promotion and focuses, e.g. on how PCC messages should be framed for a specific target population. The place elaborates on where PCC messages should be distributed, e.g. through online platforms.

### Data collection

To gain more insight into the eight benchmarks regarding PCC, evidence was retrieved from existing literature and previous PCC interventions. A search for English written publications was performed through PubMed in June 2020. A syntax was used with a combination of the following keywords:

- terms identifying the perspective, such as “mother”, “women” or “parents”;
- terms as “social marketing”;
- terms as “motives”, “perspectives” or “viewpoint”; and
- terms defining the domain “preconception care”.

This large body of evidence was used to provide the fundament of a PCC social marketing strategy according to the eight NSMC benchmarks. The final benchmark provides an extensive overview of the individual PCC beliefs and strategies categorised in the four constructs of the “marketing mix” and included 31 articles in total.

Benchmark	Explanation
Behaviour	Aims to change people’s actual behaviour and has specific measurable behavioural objectives
Customer orientation	Focuses on the audience, fully understands their lives, behaviour and the issue at hand
Theory	Uses behavioural theories to understand behaviour and inform the intervention
Insight	A deep understanding of what moves and motivates the target audience, including who and what influence the targeted behaviour
Exchange	Clear and comprehensive analyses of the perceived/actual costs versus perceived/actual benefits
Competition	Addresses direct and external factors that compete for the audience’s time and attention
Segmentation	Avoids a “one size fits all” approach: identifies audience segments, which have common characteristics
Method mix	Uses all elements of the marketing mix: <ul style="list-style-type: none"> <li>• Product</li> <li>• Price</li> <li>• Place</li> <li>• Promotion</li> </ul>

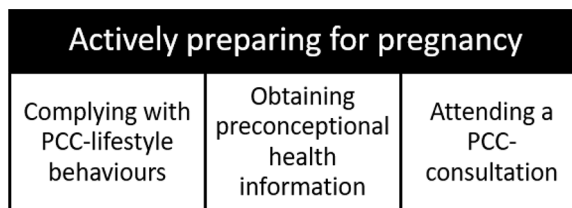
**Table 1.**  
Explanations of the eight NSMC benchmarks (Merritt, 2011)

*Development of the social marketing strategy*

After the literature search, our project group of marketers and health-care professionals started the development process of a new social marketing strategy. This process was initiated by a specific consensus meeting. This consensus meeting took place with a group of five local health-care providers (four midwives and one general practitioner) and the research and marketing team. The large body of evidence from the benchmarks was extensively discussed, and together, we decided on the key elements of the new PCC social marketing strategy. The consensus meeting resulted in a blueprint for all steps to be taken to make people from inside and outside health-care organisations, an active part of the desired behavioural and societal change. Then, the development phase started where the marketing agency developed the concept and visuals for the new PCC social marketing strategy. Both offline (posters/flyers) and online (website/social media) marketing aspects were created. During this iterative process, all communication items were continuously refined based on feedback that was obtained from the research team. Also, small-scaled verbal pre-testing of the materials took place amongst the target population using a bottom-up approach. The implementation and evaluation phase, in which the final products are being evaluated, is currently ongoing in a stepped-wedge randomised controlled trial (APROPOS-II), where the social marketing strategy is implemented in four municipalities in The Netherlands (Maas *et al.*, 2020).

**Results***Benchmark 1: behaviour*

To reduce adverse pregnancy outcomes, prospective parents should be encouraged to change unhealthy lifestyle behaviours and be aware of certain preconceptional health risks, ideally before pregnancy (Van Der Pal-de Bruin *et al.*, 2008). Previous research showed that up to 98% of all couples contemplating pregnancy have at least one risk factor that could adversely affect pregnancy outcomes, e.g. being overweight, not using folic acid supplements (vitamin B11 to prevent neural tube defects) or consuming alcohol, for which personal counselling from a health-care provider is indicated (Jack *et al.*, 1998; Van Der Pal-de Bruin *et al.*, 2008). Awareness of these risk factors increases the likelihood of prospective parents improving their lifestyle before pregnancy recognition (Poels *et al.*, 2017b). Based on this knowledge, the behavioural goal we defined in the consensus meeting for our marketing strategy was “actively preparing for pregnancy”. This behavioural goal was specified into three measurable sub-behavioural goals: complying with PCC lifestyle behaviours (e.g. taking folic acid supplements), obtaining preconceptional health information (e.g. gathering evidence-based PCC advice) and attending a PCC consultation (consulting a health-care provider, e.g. a midwife or a general practitioner) (Figure 1). Behaviour change is defined as the initiation of one of these sub-behaviours.



**Figure 1.**  
Behavioural goals of our PCC social marketing strategy

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### *Benchmark 2: customer orientation*

The target population for PCC interventions are prospective parents in the reproductive phase of their lives. A previous Dutch retrospective cross-sectional study showed that while almost all participants (95%) experienced their health as good, very good or excellent, still 11% of them had a chronic illness, 22% had a body mass index (BMI) of  $\geq 25 \text{ kg/m}^2$ , 21% were smokers and almost 60% used to drink alcohol in the preconceptional period (Poels *et al.*, 2017b). Research shows that women are considered to be more susceptible to alcohol-related harm than men (Raciti *et al.*, 2013). This suggested lack of awareness on one's own health status should be taken into account when developing the strategy. Prospective parents who are currently contemplating pregnancy are most likely born between 1980 and 2000, also known as the Y generation or the millennials. This is the first generation to grow up with the internet and social media (Sherber, 2018). As previous research shows that the internet is prospective parents' main PCC information source for preconception health information, the use of technology and social media to broadcast PCC messages may be a promising tool to reach the target population (Poels *et al.*, 2017b). Therefore, we decided in the consensus meeting that our PCC social marketing strategy should distribute easily accessible online PCC information to the entire target population. Our starting points were that every prospective parent can contribute to a healthy pregnancy, and that PCC is something every prospective parent should undertake before trying to conceive. We also acknowledged the open-mindedness of the millennials, their need of being part of a larger societal collective and act upon their willingness to live a more conscious and healthier lifestyle.

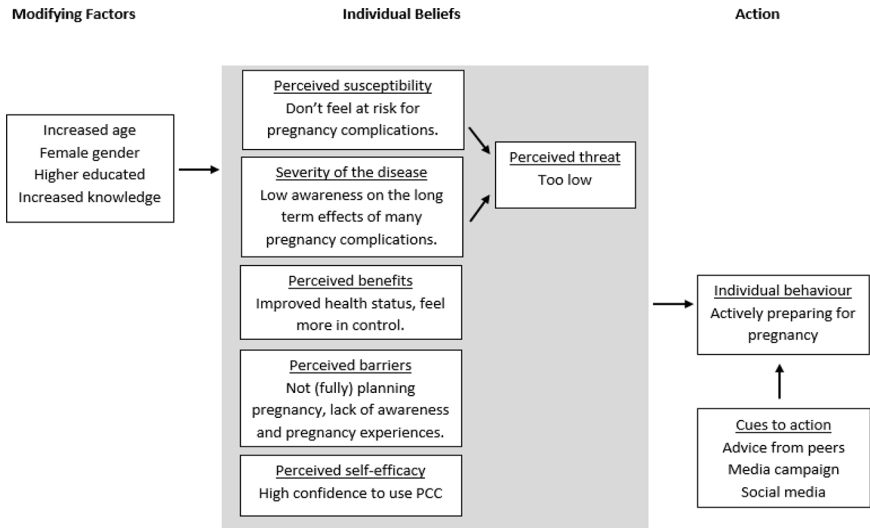
### *Benchmark 3: theory*

In the literature, several behavioural theories are described that might be useful in the field of PCC, e.g. the theory of planned behaviour, theory of reasoned action, social cognitive theory and health belief model (HBM) (van der Zee *et al.*, 2013a). The HBM is the most frequently used social cognition model to predict health behaviours and hypothesises that behaviour is influenced by individual beliefs and related to possible health outcomes (Charron-Prochownik *et al.*, 2001). The HBM is widely evidenced and is applied to topics as vaccination, medication adherence and condom use (Carpenter, 2010). Figure 2 shows how the HBM was used as the theoretical basis of our PCC social marketing strategy. First, the desired action was determined, in our case, "actively preparing for pregnancy". Several extrinsic factors, also known as cues to action, can remind individuals that they should act upon these desired actions (Carico *et al.*, 2020). The cues to action integrated into our PCC social marketing strategy are the use of social media, conversation with peers and the use of a large-scale media campaign. In addition, there are several intrinsic individual beliefs that can influence one's actions. For instance, a low perceived susceptibility (not feeling at risk for pregnancy complications) together with a decreased awareness of the severity of disease (unfamiliarity regarding the incidence or the possible long-term effects of pregnancy complications) results in a low perceived threat (Sui *et al.*, 2013). Perceived benefits of actively preparing for pregnancy can include feeling more in control of one's health. Many perceived barriers of actively preparing for pregnancy are widely evidenced, e.g. not (fully) planning a pregnancy or previous experiences (Poels *et al.*, 2016). Subsequently, one must feel competent (perceived self-efficacy) to overcome perceived barriers. Currently, prospective parents feel self-confident enough to use PCC (Temel *et al.*, 2013; Darsareh *et al.*, 2019). Our PCC social marketing strategy encourages prospective parents to take small steps (e.g. exercise more by a daily walk) that can already make a difference. Finally, modifying factors like age or educational level positively influence the likelihood of actively

preparing for pregnancy (Poels *et al.*, 2017b). These modifying factors were taken into account when segmenting our target population for our PCC social marketing strategy (Benchmark 7).

*Benchmark 4: insight*

There is a wide body of evidence on the different barriers and facilitators for using PCC as a previous systematic review carefully describes (Poels *et al.*, 2016). Barriers for the uptake of PCC are categorised into six themes: “availability of PCC information”, “planning a pregnancy”, “need for PCC”, “emotional aspects”, “time and money” and “social network”. While some of these barriers can have practical solutions, other barriers have a strong emotional component. Several fears can be identified as barriers for the uptake of PCC; fear of being confronted with risks, fear for the unknown and, finally, the fear of being labelled, judged or lectured (Poels *et al.*, 2016; O’Higgins *et al.*, 2014; Tuomainen *et al.*, 2013; McGowan *et al.*, 2020). In addition, many prospective parents prefer to keep their wish to conceive private. They are, therefore, less inclined to confide with a health-care provider as prospective parents have a strong desire that their pregnancy develops naturally and romantic, but not artificial (van der Zee *et al.*, 2013a, Tuomainen *et al.*, 2013; Murphy *et al.*, 2010; Poels *et al.*, 2017a, McGowan *et al.*, 2020; M’Hamdi *et al.*, 2018). Many of these barriers derive from the notion that women feel at risk for adverse pregnancy outcomes and tend to overestimate their health status. Literature suggests that there are three main reasons for women who do not consider themselves as the target population for PCC: perceived sufficient knowledge, perceived lack of risk and misunderstanding of the aim of PCC (van der Zee *et al.*, 2013b; Hosli *et al.*, 2008b). During the development of our PCC social marketing strategy, we chose in the consensus meeting to act upon these insights. For instance, based on one of the definitions of female empowerment (“to take control over their own circumstances and to realize their aspirations in order to live a life they have reason to value”), one of the core elements of our PCC social marketing strategy is empowerment (Galie and Farnworth, 2019). We empower prospective parents to take responsibility for their health before pregnancy. Hence, we encourage prospective parents to talk about their wish to



**Figure 2.** Example of how the HBM can be used for a PCC social marketing strategy



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conceive as this proves to be an opportunity to retrieve PCC information from their personal networks.

#### *Benchmark 5: exchange*

Previous literature describes several “costs” for engaging in active preparation for pregnancy. For example, the actual financial costs of a PCC consultation, wish for privacy, fear for too many health risks, not feeling confident to be able to change unhealthy behaviour, time pressure to change unhealthy behaviour and social pressure for achieving behavioural change (van Voorst *et al.*, 2017; O’Higgins *et al.*, 2014; Squiers *et al.*, 2013; van der Zee *et al.*, 2013a; Tuomainen *et al.*, 2013; Murphy *et al.*, 2010; Poels *et al.*, 2017a; McGowan *et al.*, 2020). By contrast, actively preparing for pregnancy can also lead to several benefits, such as improved personal health, health gain for the prospective child, possible reduced time to conception, feelings of reassurance, confirmation and relieving stress (Poels *et al.*, 2017a; Squiers *et al.*, 2013; M’Hamdi *et al.*, 2018; Lewis *et al.*, 2013). Bearing this in mind, in the consensus meeting, we chose to focus on the positive framing of PCC information. Prospective parents mainly search for information to reduce the time to conception, while providing this fertility information, it is only a small step towards providing broader PCC information, such as information on physical activity. Finally, in our PCC social marketing strategy, we collaborate with many different disciplines of professionals (e.g. dietitians or personal trainers), so we can refer prospective parents towards the appropriate professional to support them in their effort towards a healthier pregnancy.

#### *Benchmark 6: competition*

In the current society, several aspects compete with the motivation and time to actively prepare for pregnancy. Therefore, when developing a social marketing strategy for PCC, one has to consider what the competition (e.g. not actively preparing for pregnancy) has to offer. First of all, pressure exists to have a healthy lifestyle. Because of social network platforms, prospective parents are now more connected to their friends or role models than ever. However, research suggests that Instagram users who follow celebrities and models are more prone to report body image concerns (Cohen *et al.*, 2017; Baker *et al.*, 2019). Prospective parents are suggested to be exposed to a great variety of opinions on how to pursue a healthier lifestyle; this amount of information might be experienced as overwhelming and could possibly discourage prospective parents to change their behaviour. Health information, especially on dieting and weight-loss advice, is often experienced as misleading commercial messages sceptical towards its validity (Pirsch *et al.*, 2013). A second competing factor for actively preparing for pregnancy is the feeling of not needing to change lifestyle behaviours. A large part of our behaviour can be interpreted as a “habit”, and many frameworks elaborate on the complex constructs influencing one’s behaviour, such as capability, opportunity and motivation (Michie *et al.*, 2011). Due to all these inhibiting factors, one can assume that not having to change lifestyle behaviours could feel like a safe option. Finally, there is a belief that PCC is not useful for every prospective parent. As previously discussed, there is evidence that the majority of prospective parents do not regard PCC as relevant for themselves, but consider PCC to be very useful for other prospective parents instead (Hosli *et al.*, 2008a; Murphy *et al.*, 2010; Tuomainen *et al.*, 2013; van der Zee *et al.*, 2013a). This highlights the need for more individual awareness in the target population that PCC could benefit all prospective parents. Our PCC social marketing strategy addresses these factors by not pressuring prospective parents to change their behaviour or visit a health-care provider for a PCC consultation as determined in the

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consensus meeting. Instead, they are provided with evidence-based PCC health information on a positive tone of voice through different media channels with the innovative use of local ambassadors to spread our message. Local ambassadors, an important aspect of our social marketing strategy, are women who act as role models for prospective parents within their community and who inspire them to take responsibility for their health. The local ambassadors provide the notion of being part of a larger collective to contribute to the health of a network of people. Examples of these local ambassadors in our social marketing strategy are online influencers, maternity fitness coaches, the local hairdresser or sisters owning a lunchroom.

#### *Benchmark 7: segmentation*

Evidence shows that two sub-groups are especially difficult to reach with PCC information. First, men often do not feel involved in the preparation for pregnancy and mainly acquire PCC information through their partners (Kotelchuck and Lu, 2017). We, therefore, chose in the consensus meeting to approach prospective fathers in our social marketing strategy through their female partners. We provide specific PCC information for the prospective father on our website and encourage women to talk to their partners about possible health risks. As previous research showed that fertility awareness among prospective fathers is low, our website tends to provide PCC information tailored to their needs (Bodin *et al.*, 2018). Second, research shows that vulnerable women (especially lower-educated and non-western ethnic minority women) are twice as likely to make inadequate use of obstetric care when compared with their higher educated native Dutch counterparts (Peters *et al.*, 2019). However, as we are aware that there is much health gain to achieve in the most vulnerable population, this target group is relatively small and known to be very difficult to reach (M'Hamdi *et al.*, 2017). Therefore, we decided in the consensus meeting to develop our PCC social marketing strategy, with a primary focus on women in the (bottom layer of the) middle class reaching them through non-traditional information channels like social media. We eventually aim to reach the most vulnerable population through word-of-mouth distribution. Thus, we made sure that our developed materials resonated well with the non-western ethnic minority in the development phase. Finally, a distinction in the target group can be made between prospective parents who are actively planning a pregnancy (planners) and prospective parents who are not planning a pregnancy anytime soon (non-planners). Research shows that planners are motivated by the idea of a healthy pregnancy and relate to the value of PCC and are therefore receptive to the idea of PCC (Lynch *et al.*, 2014). Evidence on non-planners suggests that messages that mention the preconception period, pregnancy or babies will not resonate with this group (Lynch *et al.*, 2014). These prospective parents may be more receptive to messages targeting women's health or general lifestyle. Therefore, we agreed in the consensus meeting to target both planners and non-planners by distributing different messages, e.g. encouraging specific PCC lifestyle behaviours as taking folic acid supplements, but also elaborating on the positive effect of strong mental health in general.

#### *Benchmark 8: method mix*

Based on a large body of evidence, Table 2 shows how individual beliefs, categorised in the four constructs of the "marketing mix", can be used for a PCC social marketing strategy. The product addresses the content of PCC and elaborates on the individual's PCC knowledge. In our PCC social marketing strategy, we promote actively preparing for pregnancy as something all prospective parents should do for a healthy start of the pregnancy. Many prospective parents have some knowledge on the content of PCC (e.g. not



Product	Price	Promotion	Place
<p><i>PCC knowledge</i></p> <ul style="list-style-type: none"> <li>● Only basic knowledge and understanding of PCC behaviours and recommendations</li> <li>● PCC behaviours are commonly confused with pregnancy recommendations</li> <li>● PCC knowledge is best amongst multipara</li> <li>● Low knowledge level about goals, contents and benefits of PCC among migrant women</li> <li>● Lack of awareness regarding the male role in PCC</li> </ul> <p><i>PCC content</i></p> <ul style="list-style-type: none"> <li>● Low level of awareness and unfamiliarity with PCC content</li> <li>● Wrong impression of PCC: how to get pregnant as soon as possible</li> <li>● PCC is not one behaviour, resulting in information overload</li> <li>● Women are sceptical towards alcohol abstinence</li> <li>● The product should focus on planning a pregnancy/healthy lifestyle</li> <li>● The preferred content of a PCC consultation: fertility and parenthood</li> <li>● Make PCC more accessible by offering multiple forms: group sessions, individual consultations</li> </ul>	<p><i>Availability of information</i></p> <ul style="list-style-type: none"> <li>● Most women are not being offered PCC or not aware of its necessity</li> <li>● Other forms for information</li> </ul> <p><i>Need for PCC</i></p> <ul style="list-style-type: none"> <li>● Lack of control; using PCC does not guarantee a healthy baby</li> <li>● Lack of perceived need for PCC, especially highly educated women</li> <li>● Multipara women are less inclined to use PCC</li> </ul> <p><i>Planning</i></p> <ul style="list-style-type: none"> <li>● Not deliberately planning a pregnancy, it just happened</li> <li>● Pregnancy planning can be seen as an unattainable ideal for women</li> </ul> <p><i>Emotional beliefs</i></p> <ul style="list-style-type: none"> <li>● Fear for disappointment, the unknown, being confronted with risks, being labelled, judged or lectured, looking up PCC information can be stressful</li> <li>● Many women prefer to keep their wish to conceive private, less inclined to tell health-care providers</li> <li>● Women desire that the process</li> </ul>	<p><i>Planners</i></p> <ul style="list-style-type: none"> <li>● Promote PCC as an aid for a healthier baby; alarm them with the consequences of negative PCC behaviour</li> <li>● Promote a health check-up, the importance of preparation and PCC behaviours</li> <li>● PCC can be positioned as a checklist to achieve a healthier pregnancy and a way to gain control</li> </ul> <p><i>Non-planners</i></p> <ul style="list-style-type: none"> <li>● Focus on health, not pregnancy</li> <li>● Promote financial readiness and effective birth control</li> <li>● PCC can be used as a way to achieve future goals and personal empowerment</li> <li>● For teens: presenting the facts, they prefer the message to be told straight-up without promoting motherhood</li> </ul> <p><i>Message</i></p> <ul style="list-style-type: none"> <li>● Most powerful: messages on the consequences of not following PCC behaviours</li> <li>● Clear and positive message</li> <li>● Promote a healthy baby, not preventing an unhealthy baby</li> <li>● Break the large set of PCC behaviours down into smaller categories</li> <li>● Messages will not come across by information alone</li> <li>● Share PCC information broadly, yet,</li> </ul>	<p><i>Consultation health-care provider</i></p> <ul style="list-style-type: none"> <li>● Main candidates for a PCC consultation: GP (or practise nurse/assistant), midwives, gynaecologist</li> <li>● Other mentioned candidates: maternity nurse, youth health-care nurse, dietitian, physiotherapist, pharmacists or social worker</li> <li>● The acceptability of the PCC information is lower in situations where the cause of the original visited is less closely related to pregnancy</li> <li>● Some women felt the inquiry about pregnancy plans to be meddlesome, confronting or even painful</li> <li>● Previous negative experiences with health services or not having a relationship with the health-care provider can be seen as a barrier to attend a PCC consultation</li> <li>● Strong desire to discuss PCC with a female health-care provider</li> </ul> <p><i>Social environment</i></p> <ul style="list-style-type: none"> <li>● Peers should not be a replacement for health-care providers</li> </ul>

(continued)

## Preconception care

**Table 2.** Individual PCC beliefs and strategies categorised in the four constructs of the “marketing mix”\*

Table 2.

Product	Price	Promotion	Place
<p>in evenings and weekends, walk-in-hours and online sessions</p> <p><i>The word PCC</i></p> <ul style="list-style-type: none"> <li>• Women are not familiar with the word PCC</li> <li>• Dislike the word PCC; too clinical, abstract and puts women off</li> <li>• Most males have never heard the term PCC or given it any thought</li> </ul>	<p>of their pregnancy develops naturally or romantic, not artificial</p> <p><i>Time and money</i></p> <ul style="list-style-type: none"> <li>• Time restraints to visit a health-care provider</li> <li>• Financial constraints decrease the necessity of PCC; a healthy lifestyle is expensive and increased health-care costs</li> <li>• Willingness to pay depends on: perceived need, satisfaction with alternative information, personal financial situation</li> </ul> <p><i>Social network</i></p> <ul style="list-style-type: none"> <li>• Social pressure from friends and family to start a family</li> <li>• Some communities may support conception only in marriage</li> </ul>	<p>discreetly, familiarising women with the importance and enabling them to access it themselves</p> <ul style="list-style-type: none"> <li>• Promote PCC as a common type of care for every couple with a (future) child wish, stipulating that it is not necessary to wait until fertility issues arise</li> </ul> <p><i>Suggested words for PCC</i></p> <ul style="list-style-type: none"> <li>• Planners: Mind and body pre-pregnancy list</li> <li>• Non-planners: women's health, healthy lifestyle, positive planning</li> </ul> <p><i>When to target women</i></p> <ul style="list-style-type: none"> <li>• When they start contemplating pregnancy or when they are trying to conceive</li> <li>• Special focus on women with fertility problem or prior adverse birth outcomes</li> <li>• Some young women do not feel comfortable being educated about PCC in college</li> </ul> <p><i>Where to target women</i></p> <ul style="list-style-type: none"> <li>• Locations connecting to the subject (e.g. maternity stores) or existing peer groups (e.g. schools, community centres, day-care centres, city hall, churches, grocery stores, library, gyms swimming pool)</li> </ul>	<p>The best approach is mouth to mouth. Some topics were not shared with the family due to their sensitivity and expectations that the advice should be followed</p> <p><i>Marketing PCC information</i></p> <ul style="list-style-type: none"> <li>• Provide PCC information through an online campaign</li> <li>• Traditional channels: TV, radio, magazine billboards, buss, mail</li> <li>• Other: TV storyline in a series, banner ads on sites</li> <li>• Social media improves passive PCC knowledge, especially for males and younger women</li> <li>• Education in high schools and colleges</li> </ul>

(continued)

Product	Price	Promotion	Place
		<ul style="list-style-type: none"> <li>Health-related locations: midwifery practice, hospital, gynaecologist, municipal health service, on waiting room screen at the doctors</li> <li>Other suggestions: public venues, stickers on birth control pills, on tampon boxes, lingerie stores, public transport, during lunch, on a beer bottle</li> </ul>	

**Notes:** \*Resources: Borrero *et al.*, 2015; Canady *et al.*, 2008; Charron-Prochownik *et al.*, 2006; Forde *et al.*, 2016; Frey and Files, 2006; Funnell *et al.*, 2018; Hosli *et al.*, 2008a, 2008b; Hussaini *et al.*, 2013; Janz *et al.*, 1995; Lang *et al.*, 2020; Lewis *et al.*, 2013; Lynch *et al.*, 2014; MHamdi *et al.*, 2018; Manze *et al.*, 2020; Mazza and Chapman, 2010; McGowan *et al.*, 2020; Mitchell *et al.*, 2012; Murphy *et al.*, 2014; Poels *et al.*, 2017a, 2017b; Quinn *et al.*, 2006; Spence *et al.*, 2010; Squiers *et al.*, 2013; Stones *et al.*, 2017; Temel *et al.*, 2013; van der Zee *et al.*, 2013a, 2013b; van Voorst *et al.*, 2017; Verdonk *et al.*, 2018; Wallace and Hurwitz, 1998 and Zhu *et al.*, 2012

Preconception care

Table 2.

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smoking in the pregnancy), but we encourage prospective parents to search for PCC information suitable for their personal situation. The construct of price entails the barriers for using PCC (e.g. not fully planning a pregnancy). The financial costs of a PCC consultation remain low and are mostly covered by Dutch health-care insurance. The third “P” stands for promotion and focuses on how PCC messages should be framed. In the consensus meeting, we agreed that our social marketing strategy should promote PCC as female empowerment instead of pregnancy-related information while using a positive tone when promoting our messages, rather than judging unfavourable health behaviour. We promote PCC as a common type of care for all prospective parents, implying that it is not necessary to wait until fertility issues arise. Women should be targeted in many public locations, varying from hairdressers, supermarkets, city hall, libraries, day-care centres and flower shops. Finally, place specifies where PCC messages should be distributed from. PCC messages are being promoted from different places in our PCC social marketing strategy, e.g. by using social media and online platforms to reach the target population as discussed in the consensus meeting.

### *The Woke Women campaign*

Based on insights into these eight benchmarks, our research group of professional marketers and local health-care providers developed a social marketing strategy called Woke Women®, a bottom-up, ambassador-driven, social marketing concept. The strategy is developed as a brand, with an innovative identity. “Woke Women” in general refers to the fact that there is a blind spot within the current health-care system when it comes to women’s health. “Wake Up, Smart Future Mama” specifically refers to “waking up” and start taking responsibility for one’s own health and the health of one’s future children. The campaign’s main goal is empowering prospective parents to actively prepare for pregnancy through increased individual and collective awareness, knowledge and options for lifestyle behaviour change. As health campaigns launched by the government are shown to be less sympathised with by our target audience, the Woke Women campaign is delivered by a collective of health-care providers and representatives of the target population, named “A Collective for Female Strength”. This emphasises the intention of women working in the areas of science, (social) medicine and midwifery to improve women’s health. One of the most valuable aspects of the Woke Women campaign is the use of several local ambassadors in all participating municipalities. A local role model as an ambassador of the Woke Women campaign strengthens the community feeling and provides an access point to the target population using their social networks.

Our primary product is our website ([www.wokewomen.nl](http://www.wokewomen.nl)) with community platform abilities. Prospective parents can find evidence-based PCC advice narrowed down to “the 10 checkpoints one should know before the start of a healthy pregnancy”. For the target population, we developed offline informative products, e.g. posters, flyers, business cards and banners. The look and feel of the Woke Women materials are displayed in [Figure 3](#). Additional merchandise items were developed to connect individuals to our brand and to promote it in daily used products. Examples of these merchandise items are hoodies, shirts, water bottles, key cords, tote bags and bike saddle covers. For the involved health-care providers, we developed both a local health-care pathway (information on PCC and local agreements on referrals) and PCC advice cards. For the online dissemination of PCC information, we built a social media platform with currently over 1.000 followers on Instagram. Using our social media channels, we provide PCC health information to our

followers, we introduce our local ambassadors and we provide a platform to collaborate with other partners.

## Discussion

This paper describes how a social marketing strategy can be developed in accordance with the eight NSMC benchmarks, taking into account the needs of the target population and the stakeholders. Developing such a social marketing strategy based on the eight benchmark criteria provides structure and grants an opportunity to combine evidence-based theory with the creative process of designing a new health-promoting social marketing strategy. For the development of the Woke Women social marketing strategy, we focussed on the incorporation of many elements of the “Four-P framework”. Including evidence-based preconceptional health information is our **p**roduct, for a low **p**rice as the information is freely attainable, **p**romoting a message of overall women’s health and online or through a consultation with a health-care provider as the appropriate **p**lace.

Social marketing principles have been previously used in maternity care (Darsareh *et al.*, 2019; Powell *et al.*, 2020). For instance, The “B Butterfly social marketing campaign”, aimed to promote natural childbirth (vaginal delivery) among first-time pregnant women in Iran (Darsareh *et al.*, 2019). The results of this campaign showed that 35.6% of the participants in the campaign group chose natural birth as a birth method, whereas only 13.5% in the control group delivered their newborns vaginally. Another example is the “Ante La Duda, Pregunta” campaign (translation “When in Doubt, Ask”) in Puerto Rico to increase knowledge about the full range of reversible contraceptive methods (Powell *et al.*, 2020). Finally, a study among teenage mothers to encourage breastfeeding in the UK suggested that social marketing strategies concepts should focus on normalising breastfeeding in public places and promote the health advantages of breastfeeding (Tapp *et al.*, 2013). Our approach is one of the first social marketing strategies that explicitly addresses all eight benchmarks in its development process towards innovation and contains the following strengths.

### *Multidisciplinary co-creation of the social marketing strategy*

The development process of our social marketing strategy consisted of many steps and feedback moments. This iterative process in which we combined the expertise of



**Figure 3.** Look and feel of the Woke Women® materials

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marketeers, an extensive body of evidence from previous PCC literature, practical point of views from health-care providers and the experiences of the target population, resulted in a new inventive strategy. Our bottom-up approach led us to engage our target population in the development process. This bottom-up approach is widely evidenced and assures researchers that their interventions have both practical and scientific value and provides more assurance for successful implementation of the strategy, compared to the traditional top-down approach (Chen, 2010).

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#### *Theoretical framework as a base for the formative research*

The HBM, as a theoretical background for the development of our new social marketing strategy, showed to be an efficient framework for gaining more insight into the target population. While the HBM is praised for providing adequate insights into behaviour, it is also criticised for not adequately considering the role of social and economic environments while explaining health behaviours (Rofail *et al.*, 2011). We likewise believe that, in PCC, the social component (e.g. not wanting to tell your surrounding you are planning a pregnancy) is an important barrier for structural embedding PCC in Dutch health care. Therefore, future research should address additional health models to explain behaviour change with a specific focus on PCC.

#### *Use of social media to reach the target population*

Social media channels have great potential in improving health promotion and are valued for their potential to engage with the target audience for enhanced communication and improved capacity to promote programmes, products and services (Neiger *et al.*, 2012). Research shows that the internet is women's main PCC information source for preconception health information, and the use of social media to broadcast PCC health messages can be promising to more efficiently reach the target population (Poels *et al.*, 2017b). A previous social marketing strategy to improve access to contraceptives demonstrated that social media channels provided an opportunity for two-way communication with the target population (Powell *et al.*, 2020). If a health information platform is easily accessible and receptive to questions, one might feel less barriers asking for help. Hence, sharing health messages by peer-to-peer promotion through individual social networks helps a campaign expand its reach and impact on the target population (Powell *et al.*, 2020). We expect that social media is a low-key effective opportunity to reach our specific target population and provides an opportunity to simultaneously boost the campaign after the launch in various regions in The Netherlands.

#### *Use of local ambassadors to spread our message*

As previously mentioned, the use of local ambassadors to spread a PCC message is one of the key aspects of our social marketing strategy. Local ambassadors represent the community, and by engaging them in our approach, we tend to reduce the gap between the target population and health-care providers. Previous studies already indicated the potential benefits of using local ambassadors in a campaign (Patten *et al.*, 2018; Powell *et al.*, 2020). In a marketing campaign to reach Alaska Native women, ambassadors called "Native Sisters" were helpful by distributing the campaign materials and information on village-specific Facebook pages, by giving presentations and holding individual or small group discussions (Patten *et al.*, 2018). A Puerto Rican study likewise proved influencers useful in reaching the target population because their social media presence and networks considerably amplified their messages (Powell *et al.*, 2020). We experienced a lot of willingness amongst the approached local ambassadors to help us spread our



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positive message; our request to participate acted upon their sense of community involvement.

A possible limitation of a PCC approach is that when encouraging prospective parents to actively prepare for pregnancy, a critical factor is whether the pregnancy is planned. The Woke Women strategy provides both pregnancy-related information and overall health messages to tailor the PCC information to both planners and non-planners. In addition, a social marketing strategy addressing all eight NSMC benchmarks does not promise a guaranteed effective social marketing. While the benchmarks can assist the development process, choices and trade-offs need to be made because not all suggestions are applicable or feasible to incorporate in the intervention. Next, the pre-testing of the materials mostly took place among highly educated women. While we are aware that this is a common limitation in research, we intend to perform more (qualitative) research on the beliefs and experiences of the developed materials in a more diverse group of respondents. Another limitation of our approach is our extensive and diverse group of women chosen as our target population. As we acknowledge that it is too opportunistic to develop a new health promotion campaign that fits the entire target population, we decided to tailor our materials on a local level. In addition, our strategy provides an opportunity to collaborate with other national and government-funded local initiatives that focus more on specific target groups, e.g. more vulnerable women. Finally, while pre-testing of our materials already showed some tentative positive results, the effect of our social marketing strategy on PCC behaviour change of prospective parents remains to be scientifically evaluated. The effect of the Woke Women strategy on PCC behaviour is currently studied in the ongoing APROPOS-II study, and the results of this study are expected by the end of 2021 (Maas *et al.*, 2020).

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## Conclusion

Actively preparing for pregnancy remains an underexposed aspect of obstetric care as the target population remains difficult to reach. We developed a customer-oriented PCC social marketing strategy focused on behavioural change, rather than just providing information. The strategy is currently being evaluated in a large-scale study in several municipalities in The Netherlands. Future research should focus on exploring collaborations with different fields of expertise when developing new social marketing strategies and pre-testing them among a diverse population. An innovative social marketing strategy that responds to the emotion and needs of the target group by using non-traditional methods for health care, such as merchandise and social media, may prove to be a valuable alternative to engage the population in health care. Developing a social marketing strategy to empower prospective parents to actively prepare for pregnancy and encourage them towards healthier preconceptional lifestyle behaviours may improve the health of future generations.

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