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Care for women across critical junctures during the reproductive years

Reproductive choices, pregnancy and menopause

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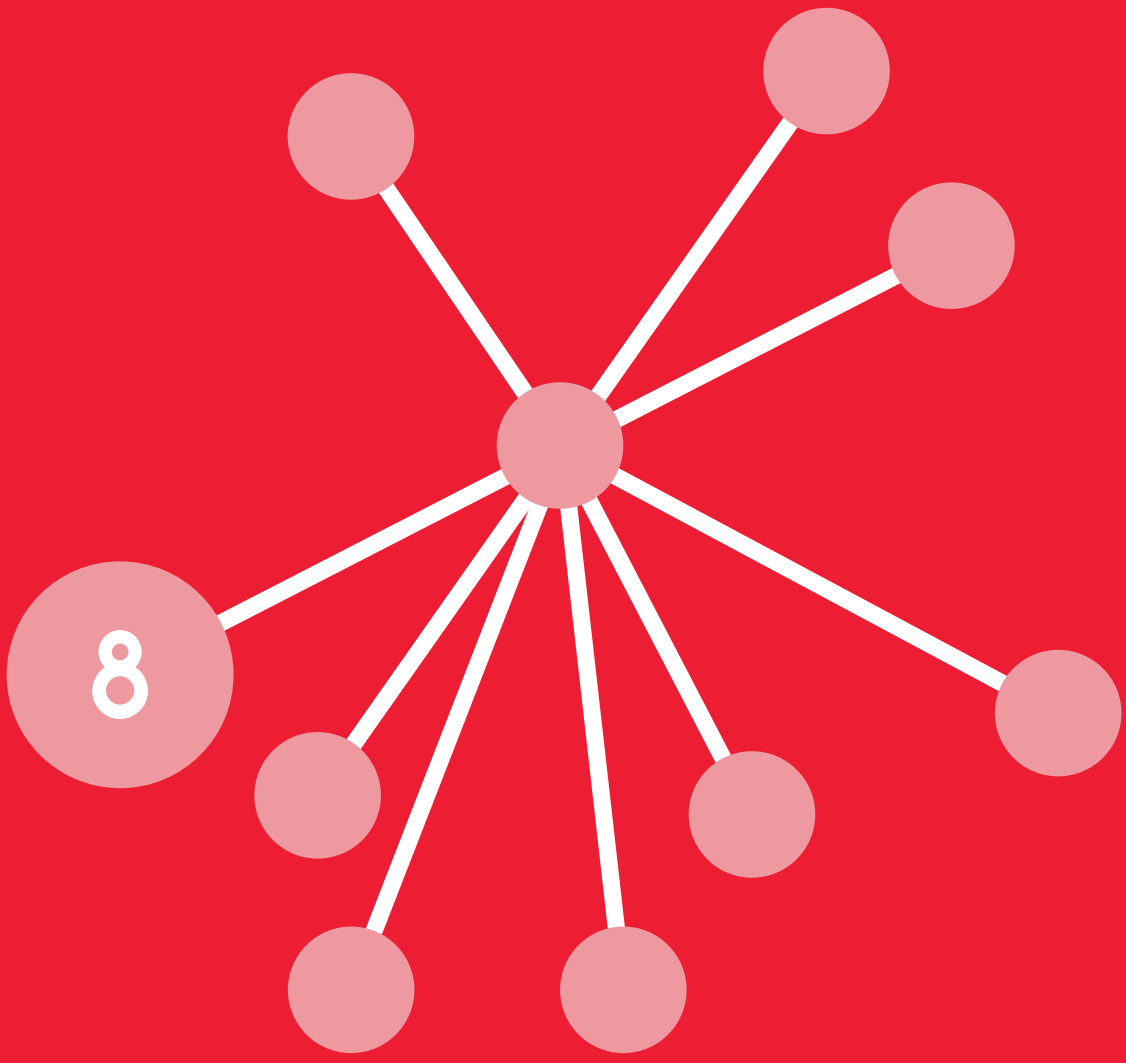
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GENERAL DISCUSSION

This thesis explores care for women at critical junctures during women's reproductive years, and whether these junctures can potentially be used to improve immediate health and wellbeing for women, and secondly, be leveraged to improve future cardiovascular and renal health. A better understanding of barriers to and needs for care at these critical junctures can inform the development of new interventions or improve existing interventions and their uptake and delivery. This thesis centers on three critical junctures in particular: reproductive choices, pregnancy, and menopause.

The following sections highlight the main findings per part of this thesis, followed by the interpretation of these findings. Then, the next section describes methodological strengths and limitations that should be considered. The last sections offer recommendations for future research and clinical practice.

Main findings per part

Part I: Reproductive choices

In **Part I**, a key theme that showed that women and partners who became (or had made someone) unintentionally pregnant relied on condoms and fertility awareness-based methods. These were fallback methods, often inconsistently used, after having had negative experiences with hormonal contraception or concerns about side effects (mostly among the women). Other key themes that emerged that shaped inconsistent or absent contraceptive use were fertility perceptions, trust in methods and partners, limited partner communication, and gendered responsibility norms. Participants also described feeling dismissed during contraceptive counseling. Contraceptive counselling may improve by actively engaging with women about the background of any concerns and proactively support women across their reproductive years.

Furthermore, women with unintended pregnancies who opt for abortion report multiple, interrelated motivations for terminating the pregnancy, not singular reasons. Frequently mentioned motivations were pregnancy mistiming, the partner relationship, family planning, and material circumstances. These were consistent across different cohorts and time periods. Seven motivational patterns were constructed in the data that, although not exhaustive, are illustrative and show that there is broad individual variation in the motives for abortion. Reproductive choices are shaped by relational dynamics and contextual circumstances as well.

Part II: Cardiovascular risk after pregnancy complications

In **Part II** of this thesis, although significant associations were found of Hypertensive Disorders of Pregnancy (HDP) with larger increases in albumin-creatinine ratio and of gestational diabetes with glycaemic measures, we did not find strong evidence for an

association of pregnancy complications with worsening of cardiovascular risk factors. In conclusion, pregnancy complications mark a group with higher a priori risk of future cardiovascular disease, based on a less favourable pre-pregnancy profile.

Findings from interviews show that postpartum cardiovascular risk management (CVRM) in multi-ethnic contexts can be improved with active outreach, better follow-up utilization, culturally tailored interventions, and regional multidisciplinary protocols to streamline care and address guideline inconsistencies. Many women are open to improving their lifestyle to prevent CVD in the future. However, these improvements rely on creating lasting behavior changes which, according to HCPs, require specific skill in motivational counselling.

Part III: Early Menopause and chronic disease

In **Part III** of this thesis, the current eligibility criteria for timely identification of women at high CVD risk in midlife are shown to perform poorly, especially in high-risk ethnic minority groups. The addition of early menopause did not improve predictive accuracy. This suggests that, although early menopause may be a relevant marker, or even mediator, the added clinical value for risk stratification appears limited if the traditional factors are known.

In addition, this work shows that EM was not consistently associated with kidney function decline, nor with CKD incidence or progression in the overall multi-ethnic population. However, the associations varied across ethnic groups, but were not mediated by traditional CKD risk factors which are guiding factors in CKD risk screening. This study suggests that traditional CKD risk factors may not be sufficient in diverse populations as targets for monitoring and prevention of CKD.

All in all, these studies show that these critical junctures are recurring moments of interaction with healthcare. When viewed as interconnected entry points, they reveal cross-cutting opportunities to enhance care at critical junctures. In the following sections, we therefore integrate and interpret the key findings from the three parts of this work.

Key findings across parts

Looking at the thesis as a whole, several overarching findings emerge. These findings may represent broader patterns that relate to care uptake and care delivery at critical junctures, as well as to integrated prevention.

1. *Listening and trust*. Non-judgmental and personalized counselling is essential for making reproductive choices, as is shown in **Part I**. Contraceptive counselling

should take the broader personal context into account. Building trust is essential for sustained engagement with care. These aspects surfaced in **Part II** as well. For instance, lifestyle counselling, according to both patients and professionals, requires trust and respect to allow individuals to make choices that align with their personal values and broader circumstances.

2. *Proactive and culturally sensitive outreach*. In **Part I and II** of this thesis, women and HCPs indicate that uptake of care may be enhanced by actively reaching out for follow-up. Outreach and subsequent healthcare interactions should aim to suit diverse backgrounds and experiences in order to reduce disparities and achieve more equitable health outcomes for women from minority backgrounds.
3. *Reproductive events are entry points to care*. In **Part II and III** of this work, pregnancy complications and early menopause were not found to be consistently associated with a worsening of risk factors chronic disease. Moreover, their added clinical value for risk stratification later in life appears limited if where traditional factors are known. Nevertheless, these key reproductive events are important entry points into care, providing opportunities to identify pre-existing risk as well as to promote and improve health.

Interpretation of key findings

Finding 1: Listening and trust

Both reproductive choices and CVRM strategies involve guiding individuals through complex health decisions. In both domains, counselling is essential, not only for understanding women's needs but also for motivating lasting healthy behavior. However, across **chapters 2 and 5**, women report feeling unheard, not taken seriously, or judged, often due to a mismatch between their preferences and HCPs perspectives.

This issue reflects broader patterns in women's healthcare of women reporting to feel they are not taken seriously by their GP, and having received medical information or advice that conflicted with their personal views (1). For instance, one Dutch study by Olofsen (2025) on first contraceptive consultations among young women (16–25 years) found that 81% wanted to discuss side effects of contraception methods, yet only 41% felt this was adequately addressed (2).

In **chapters 2 and 5,** such negative experiences sometimes led to avoidance of care, underscoring the importance of building trust through respectful, empathetic interactions between patients and HCPs. Fostering a conducive patient-provider relationship may facilitate future reengagement with healthcare services. Improving the interpersonal relationship starts with listening and may require shared-decision-making (SDM) during

which concerns and broader context are considered, and follow-up to respond to evolving needs.

Shared decision-making

SDM is widely recognized as a cornerstone of patient-centered care, promoting two-way communication and equity (3). While around half of women prefer shared decision-making (SDM) as the model for choosing contraceptive methods and desire collaborative care, they still encounter one-way or information-based care models (2, 4). HCPs, who generally want to implement SDM, cite general barriers for such as limited time, insufficient training, and lack of knowledge (3, 5). Specifically for contraceptive methods, HCPs report a lack of knowledge on natural contraceptive methods or choices that diverge from standard efficacy norms (6).

Broader context

Quality counselling also requires attention to the broader personal context. For instance, **chapter 3**, confirms that asking for reasons for abortion decisions can be stigmatizing and often adds little to care quality (7-9). Whether a pregnancy is more or less intended often depends on contextual factors like the experienced relational stability, the available time and space or the readiness for parenthood (10), which shares overlapping themes with motives to decide for abortion (11). Instead of asking *why* a decision is made, it is more helpful to ask *what is needed*. Questions about how the pregnancy was discovered, initial reactions, and subsequent steps, offer richer insight without oversimplifying complex realities (11). This approach aligns with perspectives such as those of Macleod (2016), which shift focus from binary concepts of *wantedness* to the more nuanced construct of *supportability (12)*. Partners also play a key role in reproductive care. Their involvement can enhance the relevance and quality of counselling in both contraception and unintended pregnancy care (10, 13). Lastly, reproductive choices are not only individual decisions, even though they are often framed as personal assessments of risks and benefits. They are shaped by broader social, cultural, and systemic contexts. It is important to move beyond a narrow emphasis on preventing unintended pregnancy and instead attend to the wider structures and policies that shape reproductive choices (14).

Similarly, **chapter 5** highlights the importance of contextualized care in CVRM. Both patients and HCPs often focus on immediate barriers, such as scheduling appointments or lifestyle changes, while overlooking underlying factors. Motivating healthy behavior requires that certain prerequisites are met. There is growing recognition of the long-term mental and cognitive impact of pregnancy complications, which can lead to prolonged reduced capacity and work loss (15). Many women reported a lack of attention to mental health after such complications (16). Addressing these broader issues could improve CVRM counselling and outcomes.

Follow-up consultations

Both CVRM and contraceptive counselling may benefit from proactively following up on healthcare interactions. For instance, follow-up consultations for contraception are currently not routinely offered, yet half of women expressed a desire for them (2). Moreover, **chapter 2** shows that contraceptive needs evolve during the life course. A shift from one-off consultations to a more recurrent care model may better support women in navigating their evolving contraceptive needs and method changes. Furthermore, repeated follow-up consultations are touchpoints where trust (and health) can be built. These moments are not only relevant for immediate wellbeing but also lay the foundation for future care, including hormone-related concerns that may resurface during other critical junctures such as menopause (17).

Finding 2: Proactive and culturally sensitive approaches

In **chapter 5**, we discovered a substantial drop-out along the care pathway for CVRM after pregnancy complications. As in **chapter 2**, women also mention both positive and negative interactions with their HCPs, but this was not the main barrier. Instead, women struggled with self-initiating follow-up care. Women deprioritize their own health or forget making appointments, despite being open to lifestyle support and wanting regular check-ups for blood pressure and glucose. These findings align with those that have been observed in international studies (18, 19). Importantly, **chapter 5** clearly shows that these patterns are more pronounced for those with a migration background, often a group at high future risk of CVD.

Inviting women for follow-up proactively and offering integrated care programs, as is done for CVRM in other high-risk groups, could be a solution according to patients and HCPs. Pilot testing of the integrated CVRM care model in combination with local working agreements that bridge birth care and primary care, has shown promising results (20).

For HCPs, motivating women for lasting lifestyle improvements was a main concern. They emphasize that tailoring support is essential for increasing motivation and adherence. Tailoring included bridging language barriers and cultural adaptation of advice on nutrition and physical activity. Some culturally adapted interventions, such as modifying traditional dishes and adapting physical activity, can support changes in lifestyle behavior (21-23). However, even though these adaptations may help women see lifestyle changes as achievable within their own routines and values, results on the effectiveness of such interventions are mixed. Evidence suggests that adaptations on multiple domains are needed (24, 25).

Finding 3: Reproductive events as strategic entry points

A growing body of evidence links pregnancy complications and early menopause to an increased risk of future metabolic diseases (26, 27). Similar associations have been reported for other femalespecific reproductive factors, such as early age at menarche and menstrual disturbances. In this work (**chapters 4 and 7**), some associations were observed between pregnancy complications and early menopause with a worsening of chronic disease risk factors over time. However, these findings largely reflected a less favourable preexisting risk profile. Moreover, incorporating early menopause into screening in **chapter 6** did not improve the identification of highrisk women aged 45 years or older beyond established criteria (e.g., smoking, BMI, family history) when these traditional criteria are systematically applied in primary care.

Despite their limited predictive value, these reproductive events may still hold practical relevance for early identification and prevention because they function as major entry points into care. This is particularly important for younger women who may not otherwise engage with preventive services, as well as for women who experience barriers to seeking or receiving care at other times. Unlike traditional risk factors, reproductive events represent predictable and nearuniversal interactions with the healthcare system. As such, they offer pragmatic opportunities to reach women, to identify preexisting risk in certain subgroups, and to strengthen continuity of care across the reproductive years.

Strengths and limitations

The following section describes the strengths and limitations, grouped into two main themes *The included perspectives* and *Data quality and methods*. A dedicated third subsection *Reflexivity* is included to critically reflect on how the researchers' social positions and assumptions may have influenced the interpretation of findings.

Limitations concerning the included perspectives

Findings are context-specific

Qualitative findings are inherently context-specific and not meant to be generalized. For instance, abortion care is relatively accessible in the Netherlands compared to other countries and community midwives have a more central role in birth care. Nonetheless, the findings resonate with broader patterns observed in other populations and settings.

In addition, the quantitative data from the HELIUS cohort were collected among selected ethnic groups in Amsterdam and may perhaps not be readily generalizable to other ethnic groups, cities with different ethnic compositions and social circumstances, or

non-urban areas (28, 29). All the studies were undertaken within the context of the Dutch healthcare system which is specifically known for the strong roles of the community midwives in birth care and of the GP in primary care, including for CVRM. Therefore, these findings may not apply to countries with other care systems and settings.

Missing perspectives

Although efforts were made to increase the inclusivity in the qualitative studies in this thesis, we have not been able to cover the full range of experiences. For example, in **chapters 2 and 3** (contraceptive behavior and motivations for abortion), there was potential underrepresentation of individuals from diverse cultural backgrounds. There was limited, cultural diversity in the DAMHS and BluePrInt study cohorts. The BluePrInt cohort was also the base population for recruitment of interview participants **(chapter 2)**. Recruitment was conducted through relevant healthcare centers and providers with sufficient coverage across the country. However, broader patterns of research participation, such as higher trust in institutions or familiarity with research, may have been insufficiently mitigated (30). For the DAHMS and BluePrInt study this meant that despite broad recruitment, participants were more often from Dutch majority backgrounds with higher levels of education. Given that cultural factors can shape reproductive decision-making (13), unintentionally excluding women with backgrounds different from those of the majority means that our interpretation is likely to primarily reflect the views of a subgroup.

Similarly, while women from diverse ethnic backgrounds were deliberately included in **chapter 5**, the voices of those from the lowest SES groups and those facing language barriers were still largely missing. Additionally, the interviewers' backgrounds (Moroccan and Dutch) and networks facilitated swift inclusion among participants with a Moroccan and Dutch background but posed challenges for others. For instance, researchers were less successful in recruiting from the Ghanaian and Turkish groups that are both well represented in HELIUS. Diverse inclusion could have been strengthened by better aligning outreach methods to the specific communities (31). Involvement of interviewers and researchers with other cultural backgrounds and further involvement of culturally diverse patient representatives may have been beneficial. Culturally sensitive approaches are not only valuable for reaching the desired populations, but also essential for participants to feel safe and willing to share often stigmatized experiences. Stigma does not only pertain to topics like contraception and abortion. Stigma can affect the experience of other conditions and circumstances, such as having pregnancy complications or behavior that is seen as unhealthy, such as smoking (32, 33).

Selection and attrition

The ethnic diversity within the HELIUS cohort is a notable strength. However, it is important to acknowledge potential selection bias which specifically applies to **chapters 4, 6 and**

7. Individuals who choose to participate in research studies often differ systematically from those who do not. Typically, they have better health and greater access to resources (31). This pattern of selection may be especially pronounced among individuals from minority backgrounds, who are known to face structural and socioeconomic barriers to participation. The data may underrepresent those with poorer health and fewer resources, potentially limiting the external validity and generalizability of findings in these chapters. Furthermore, where follow-up data from the HELIUS cohort were used **(chapters 4 and 7)**, selection may have been further compounded by attrition bias. Participants who took part in the follow-up measurement were generally healthier than those who only participated at baseline (29). Individuals facing greater health challenges are more likely to drop out (29, 31). A previous study on the topic of menopause and long-term health outcomes in a multi-ethnic population in the US, has confirmed the potentially distorting effects of these selection biases (34). As a result, the incidence and progression of negative health outcomes may have been underestimated in certain subgroups with greater health-related attrition. While attrition cannot always be prevented, its impact on findings can partly be assessed using statistical methods such as inverse probability weighting. While this was applied **chapter 7,** the interpretation of **chapter 4** could have been improved by adding such analyses.

Limitations concerning data quality and methods

Reliance on existing data collections and databases

Combining newly collected interviews with existing data from DAMHS and BluePrInt proved to be a strength. It allowed for triangulation of different types of data across different time periods. Moreover, using existing data is also a sustainable research practice that maximizes the insights gained from participants' contributions. At the same time, these datasets were shaped by earlier methodological choices and conceptual frameworks, which may not be aligned with more recent insights into how people experience and articulate unintended pregnancy.

This change of insight is apparent, for instance, in **chapters 2 and 3.** Both the DAMHS and BluePrInt Study participants were asked in structured interviews and surveys to list 'reasons for abortion'. However, in response to evolving insights (7-9), we focused more on the narrated experiences of discovering the pregnancy and the initial responses in more recent data collections (10). Reassuringly, the narrative method used in the recent interviews revealed the same motivating elements for deciding to carry to term or to abort an unintended pregnancy. However, they better maintained the nuance of individual stories and contexts. Asking about the experience of discovering pregnancy and the context of unintendedness, thus, provides a more meaningful basis for understanding and addressing care and support needs (10).

Applicability of statistical cut-off reference values

Another limitation concerning *data quality and methods* is the reliance on standardized health classifications, such as categorizations of age at menopause, BMI, SES, and cardiovascular risk scores. Categories are often statistically defined using predominantly white, European origin populations. For instance, menopause categories (premature, early, normal) are based on Western cohorts, yet studies show that women from Black, Latina, and Asian backgrounds tend to reach menopause earlier (34). This categorization risks misclassifying normal variation as 'early' and may distort associations with health outcomes. Similarly, BMI is a covariate in **chapters 4,6 and 7** but a debated measure, especially among ethnic groups with differing body compositions (35). Waist-to-hip ratio and waist circumference have been proposed as more accurate predictors of cardiovascular health and risk. In the same **chapters 4,6 and 7,** based on HELIUS data, educational level was used as a proxy for SES. However, educational levels often fail to capture structural inequalities that shape health in minority populations. For example, people with a high attained educational level may still struggle to pay for basics, live in disadvantaged neighborhoods, and suffer structural inequalities in the healthcare system (36). Lastly, the SCORE algorithm, which classifies CVD risk into low, moderate and high risk of having a cardiovascular event within the next 10 years, is known underestimate CVD risk in women and in certain ethnic minority groups (37). Potentially, these limitations lead to attenuated associations when the estimated 10-year risk of CVD is used as a health outcome, such as in **chapter 6**. The true impact of early menopause on chronic disease risk may be higher, highlighting the need for more inclusive models that are applicable in our increasingly diverse populations.

Design impact on data

Chapters 2 and 3, address sensitive topics such as contraceptive behavior, unintended pregnancy, and abortion. Experience experts were involved in the development of the topic list, and interviewers were trained to foster non-judgmental interactions during the interviews. Despite these efforts, expressions of self-blame ("I was so stupid") were common. Internalized norms may have influenced how participants framed their experiences with contraceptive behavior and their motivations for abortion. Asking questions on *how* and w*hy* can be confronting and may have evoked socially acceptable answers.

Additionally, in **chapter 5,** the way the study was introduced, and the questions were posed may have influenced participants' responses. By informing women of their elevated CVD risk and focusing on their care experiences, we may have unintentionally primed them to underreport care they received or to emphasize perceived gaps in care. This effect may have been amplified by the cognitive difficulties some women experience following pregnancy complications, which can persist over time (15). Several participants acknowledged that they may have received care they no longer remembered.

Reflexivity

Social positions have influenced the design and interpretation of the work in this thesis. Firstly, the interviews in **Part I** of this thesis were conducted by white, highly educated, women of fertile age, each with their own direct or indirect experiences of reproductive events including (un)intended pregnancy, miscarriage, abortion and parenting. While the research questions for **chapter 2 and 3** were formulated by the commissioning body (Ministry of Health, Welfare and Sport), the research team independently conducted the analyses and regularly reflected critically on their own perspectives. These reflections included how the composition of the team may have shaped the questions asked, what was shared, how it was interpreted, and what may have remained unsaid. As an example, our growing awareness of the impact of language, such as asking for "reasons" for abortion, emerged through this process and led us to adapt our approach for subsequent in-depth interviews and data collection.

Secondly, social positions also influence how patterns of health outcomes in quantitative data are interpreted. As researchers, it is easy to default to the norms and categories of the majority population which are shaped by societal concepts and rooted in Western norms (e.g., for BMI, SES). For example, the Dutch majority group was consistently used as the reference group in stratified analyses in **chapters 4, 6 and 7**.

Lastly, the social position of the researcher also comes with implicit assumptions which, in part, determine how findings are translated into practice. For example, lifestyle behavior is easily considered a matter of personal choice by people working in healthcare and research, who generally have higher health literacy and agency. This can obscure the social and economic realities that shape lifestyle behaviors (38). In the studies on chronic disease risk and management, this framing may lead to emphasizing individual motivation as a driver of health behavior. On top of this, by researching barriers and needs we assume that if care is sufficiently tailored to people's needs, they will change their behavior. These processes can therefore lead to pathologizing certain groups by implying that poor health outcomes are due to individual failing rather than structural barriers, such as financial insecurity, systemic bias, or limited access to preventive care.

Directions for future research

Altogether, the findings, interpretations and discussions of the studies in this thesis highlight certain remaining knowledge gaps that could be addressed by future research:

More inclusive and sensitive research designs

Despite growing attention to women's health, certain groups of women remain underrepresented, such as those with language barriers, lower socioeconomic status (SES), or cultural backgrounds that differ from the majority population. This leads to blind spots in understanding health behaviors and care needs, even more so around topics that may not be freely discussed. To improve the patient-centeredness, uptake and delivery of care, future studies must (even more) deliberately engage these groups. Practical strategies for qualitative research include simplifying patient information and informed consent forms, working with multilingual interviewers, meeting participants in familiar settings, and building trust through personal connections through key persons (39).

These approaches can also be used for outreach in quantitative research. Moreover, in such designs, participation and attrition must be anticipated and actively mitigated. In routinely collected quantitative data this may involve opt-out methods as opposed to opt-in to reduce bias caused by selective participation (40, 41). In prospective studies, even those that have invested heavily in inclusive recruitment such as HELIUS study described in this thesis, reducing attrition may involve addressing barriers to participation, and active engagement with the community by offering reciprocal benefits without self-interest. Although there may still be unobserved factors that need to be taken into account, this will strengthen the validity and generalizability of findings and do justice to the investment of time and effort of all participants in the study.

Reproductive factors as predictors

Besides pregnancy complications and early menopause, other reproductive factors have links with chronic disease risk. For instance, earlier age at menarche and a shorter duration of the reproductive lifespan have associations with CVD (42). The same applies to having an earlier age at first birth, and a history of miscarriage, stillbirth or hysterectomy (43), or having other female-specific factors such as PCOS, menstrual irregularities, and vasomotor symptoms during the menopause transition (44).

So far, the biological and social pathways that link reproductive factors with chronic disease are incompletely understood. There is growing evidence that shared underlying mechanisms link reproductive factors to chronic disease. For instance, oestrogen plays a protective role in both cardiovascular and kidney health, and its decline has been suggested to play a causal role in developing both CVD and CKD (45, 46). Reproductive factors are often used as proxies for lifetime oestrogen exposure and often studied in isolation. Yet they are interrelated. For instance, the duration of the fertile lifespan incorporates both age at menarche and age at menopause. Which of these factors, or

which combinations, are most predictive of chronic disease in midlife and whether they add value on top of other risk factors, has not yet been sufficiently studied.

Further research is needed not only to clarify these mechanisms but also to explore their implications for the timing of interventions. For example, it is currently unknown whether women who experience pregnancy complications are also more likely to also have early menopause. If such clustering of reproductive risk factors occurs within individuals, it could support the case for even earlier preventive action (44). Furthermore, the link between reproductive factors and chronic disease may also be influenced by social determinants of health, such as stress, access to care, and cumulative disadvantage. Understanding the underlying mechanisms through a life course perspective of subsequent reproductive milestones helps identify optimal windows for risk identification and integration of preventive care, especially for underserved groups.

Evaluating the effectiveness of interventions

Beyond their clinical value for risk stratification, the key reproductive events around which these factors occur may represent important opportunities for health promotion and chronic disease prevention. Whether these moments truly allow earlier identification of women with more adverse preexisting risk profiles, particularly younger women and those who face barriers to care at other times, still needs to be confirmed. The effectiveness of offering interventions at these points also remains to be established and will likely depend on factors such as acceptability, delivery, and their ability to support behavioural change (e.g., weight management, nutrition, physical activity). To maximize their potential, interventions should be tailored to the needs and circumstances of younger women, and their effectiveness should be evaluated to support HCPs in implementing them with confidence.

For instance, future research could focus on adapting existing CVRM prevention programs, which are typically designed for older populations and may not align with the needs and circumstances of younger women. This group often faces different challenges, such childcare responsibilities and work–life balance at earlier career stages, that may influence participation and engagement. Integrating CVRM into primary care in ways that fit naturally within existing care pathways for highrisk groups, while minimizing additional burden for HCPs, may support more successful implementation. However, evidence on the preventive impact of such CVRM programs for younger women remains limited. Therefore, this is a key area for future research to support guideline translation into practice and improve long-term health outcomes for women post-pregnancy complications.

Recommendations for clinical practice

The studies in this thesis underscore the value of viewing key reproductive events as critical junctures for both immediate and long-term health. Several clinical recommendations can be drawn from these insights.

When counselling falls short, individuals often rely on less effective contraceptive methods and use them inconsistently. Similarly, counselling may play an important role in motivating healthy lifestyle changes after a complicated pregnancy. In both domains, participants reported barriers related to the quality of interaction with HCPs. Specifically, women felt unheard, dismissed, or blamed for taking health-related risks. Prior negative experiences with HCPs eroded trust and, in some cases, led women to avoid care altogether when anticipating negative HCP attitudes.

To improve the quality of these interactions, HCPs can:

- Take a collaborative approach that begins with listening to each person's situation and care needs.
- Consider the broader context: decisions are not solely based on rationality, emotion, or intuition, but are shaped by partners and structural barriers. Specifically for reproductive choices: Don't ask *why*, ask *what* is needed.
- Create opportunities to build trust, ensuring women feel safe to enter care and return with questions or concerns. This is especially important for contraception, which is a recurring need, and conversations can serve as a foundation for discussions about hormone use, including during the menopause transition.
- Offer proactive follow-up for contraception and CVRM. Women may need support to initiate and evaluate their contraceptive use, as well as to participate with CVRM and make lasting healthy changes in their lives.

Lastly, key reproductive events can be seen as a series of critical junctures across the lifespan. While not every woman encounters every key event, most will experience several that (typically) involve contact with HCPs. These touchpoints of interaction, for instance around giving birth and the postpartum consultations, can serve as practical opportunities not only for early intervention and longterm health promotion but also for building the foundations that support future healthcare engagement.

In conclusion, key reproductive events create major changes in women's lives and provide recurring moments of interaction with healthcare providers. These events can be seen

as a series of critical junctures and many women encounter several of them across their reproductive years. At these critical junctures, those around reproductive choices in particular, improved counselling and a collaborative approach may help build trust and sustained engagement with care. At the same time, pregnancy and menopause offer windows of opportunity for tailored preventive interventions which, when offered proactively and at the right time, can improve women's healthcare trajectories and contribute positively to the future health and wellbeing of women.

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