NETHERLANDS
EXPERTISE CENTRE FOR
TOBACCO CONTROL
part of the Trimbos Institute

Oktober 2021

SMOKING CESSATION COUNSELLING IN MATERNITY CARE IN THE NETHERLANDS

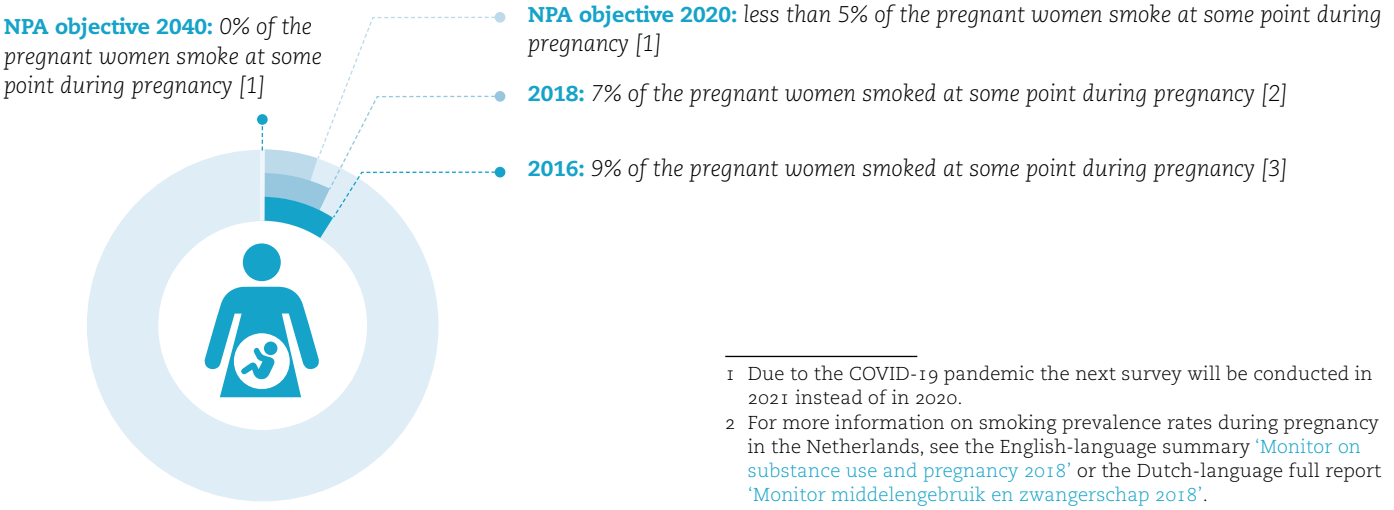
The government of the Netherlands is working hard to make smoking something of the past. One important goal of the National Prevention Agreement (NPA) is to completely eliminate smoking by pregnant women [1]. The government has the ambition that by 2040, all women in the Netherlands will completely refrain from smoking during pregnancy. The government's objective for 2020 is that the number of pregnant women who smoke will have dropped from 9% (in 2016) to less than 5%. In 2018, 7% of pregnant women still smoked at some point during their pregnancy. In order to reach the government's ambition, the maternity care system in the Netherlands has an important role to play in motivating and supporting pregnant women to quit smoking. This infosheet provides information about the provision and delivery of pre- and post-natal care in the Netherlands and how smoking cessation support is organized as part of this care.

SMOKING PREVALENCE AROUND PREGNANCY IN THE NETHERLANDS

In the Netherlands, every two years the Monitor on Substance Use and Pregnancy is conducted by Trimbos Institute for the Ministry of Health, Welfare and Sport[1].

This survey gathers data on smoking prevalence in the Netherlands before, during, and after pregnancy [2]. The 2018 survey revealed that 15% of the women smoked in the four weeks before pregnancy, 7% at some point during pregnancy, 3.5% during their entire pregnancy, and 11% after pregnancy. These numbers were slightly, but not significantly, lower than those in 2016 [3]. The 2018 survey also showed that the prevalence of smoking during their entire pregnancy was low among women with higher education (0.6%) when compared to women with middle (5%) or lower (11%) education[2] [2].

Figure 1. National objectives and figures on smoking cessation prevalence of Dutch pregnant women.



1 Due to the COVID-19 pandemic the next survey will be conducted in 2021 instead of in 2020.

2 For more information on smoking prevalence rates during pregnancy in the Netherlands, see the English-language summary 'Monitor on substance use and pregnancy 2018' or the Dutch-language full report 'Monitor middelengebruik en zwangerschap 2018'.

Long-term data on smoking in pregnancy have been collected by TNO, the Netherlands Organization for Applied Scientific Research, until 2015. According to TNO data, between 2001 and 2015 the smoking prevalence of women who were smokers (i.e., reporting that they smoke daily during the entire pregnancy) was measured by TNO with a survey on breastfeeding (Figure 2 – in blue) [4]. More recent data can be found in the Monitor on Substance Use and Pregnancy, which also measured the smoking prevalence of women during pregnancy in 2016 and 2018, using the same operationalization of smoking as the TNO survey (Figure 2 - in red). Overall, there seems to be a declining trend in smoking prevalence over the years. This declining trend might be related to smoking cessation interventions in midwifery practices (see also section "Integration of smoking cessation counselling in the Dutch maternity care system") and to the launch of the Smoke-Free Start Taskforce in 2015, which aims to improve smoking cessation counselling of pregnant women in the Netherlands (see also section "Smoke-Free Start Taskforce").

Comparison of smoking prevalence with other countries

The European Perinatal Health report provides information on smoking prevalence during pregnancy in various European countries [5]. The latest report presents data from 2015. Although it is hard to compare prevalence rates between countries due to methodological issues and differences in data reporting, smoking prevalence during pregnancy in the Netherlands (9%) appears to be an average prevalence rate when compared to rates in other European countries (Figure 3).

Figure 2. Trends in smoking prevalence during the entire pregnancy in the Netherlands between 2001-2018

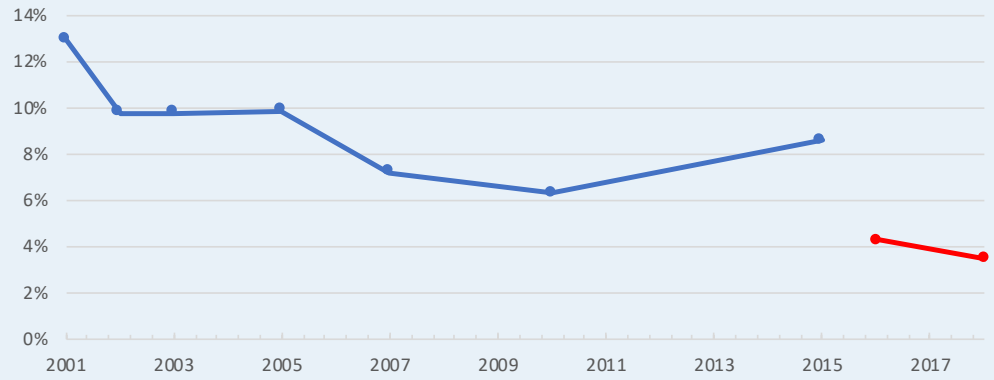
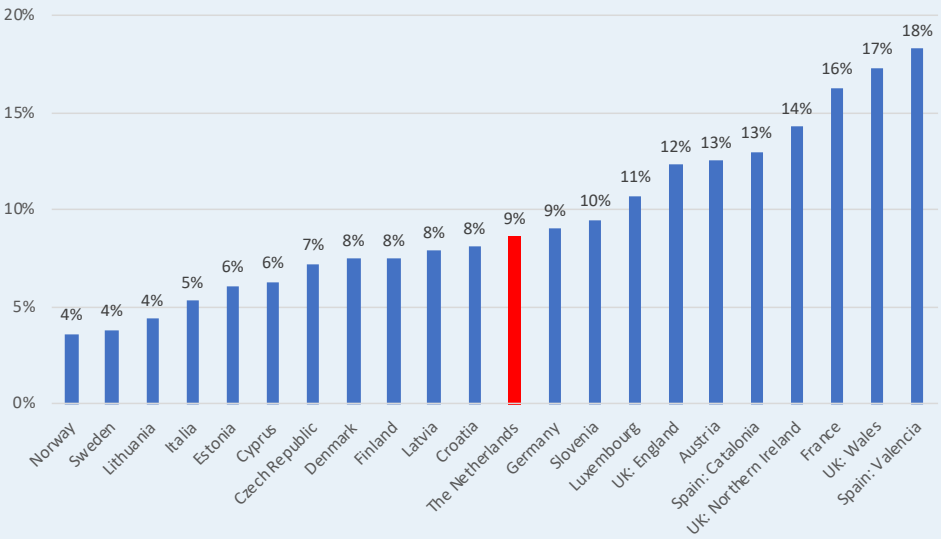


Figure 3. Smoking prevalence during pregnancy or in 3rd trimester of women in European countries in 2015



HOW IS THE MATERNITY CARE SYSTEM IN THE NETHERLANDS ORGANIZED?

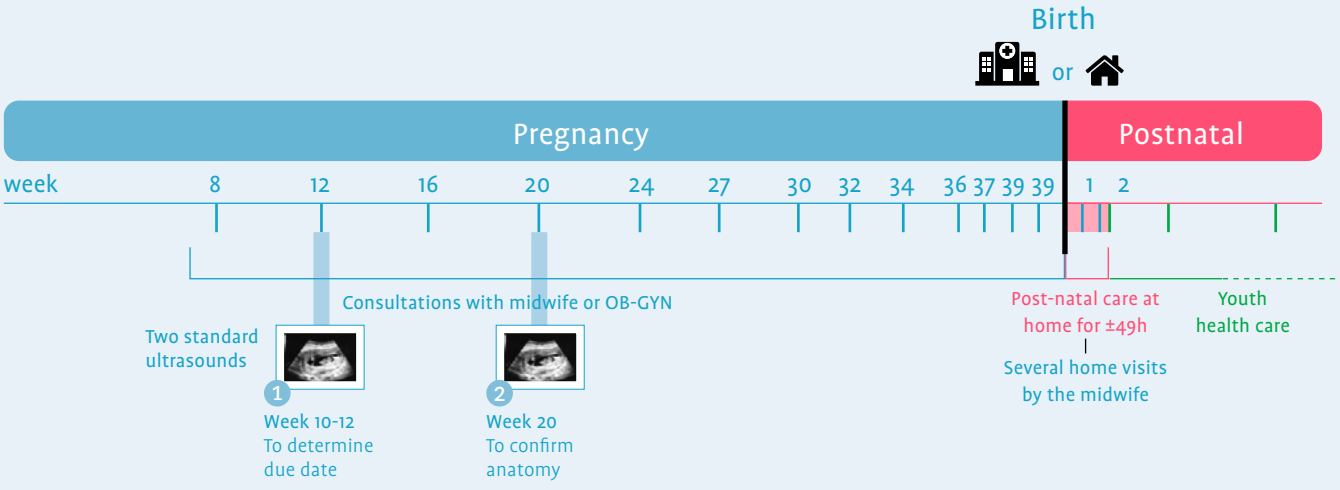
Prenatal care

In 2019, the average age at which women in the Netherlands gave birth to their first child was 30 years old. From 2004 to 2013, the average age remained stable at 29,4 years. Since 2014 the trend went upwards [6]. In the Netherlands, the first prenatal visit occurs between the 8th and 10th week of pregnancy. The first visit is commonly with a primary care midwife. Primary care midwives work from their own private midwifery practices, in group practices, or at birth centers. In 2016, there were 555 private and group midwifery practices in the Netherlands [7]. Primary care midwives work as independent health professionals and provide perinatal care to women with uncomplicated pregnancies. In the Netherlands, midwifery education consists a four year Bachelor of Science in Midwifery program, which includes training in prenatal care, birth care, and postnatal care. Primary care midwives can obtain an additional education to become a clinical midwife. Clinical midwives work in hospital settings under supervision of an obstetrician-gynecologist (OB-GYN); the responsibilities and work of a clinical midwife is distinct from that of a primary care midwife in that they routinely care for pregnant women who have complications during their pregnancy.

If complications arise during pregnancy or during labor, pregnant women are referred to secondary or tertiary hospital-based care. An OB-GYN or a clinical midwife then provides care for as long as necessary and refers the pregnant women back to the primary care midwife when complications have been managed and risks have been reduced.

Women with a low-risk pregnancy have the choice to give birth at home, in a birth center, or in the hospital, with delivery care provided by their primary care midwife. Pregnant women with complications during their pregnancy or during labor give birth in hospitals, with care provided by a clinical midwife or gynecology trainee or an OB-GYN if necessary. In 2018, primary care midwives supervised 28% of births in the Netherlands, either at home (13%) or in a birthing center or outpatient clinic of a hospital (15%). The majority of the births (71%) took place in secondary care under the supervision of an OB-GYN [8].

Figure 3. Timeline of maternity care in the Netherlands*



*In average pregnancy. Consultations with midwife or OB-GYN and may differ in frequency in complicated pregnancies.

Postnatal care

In the early postnatal period, a postnatal care nurse provides care to the mother and baby at home for 49 hours on average, spread over the first 8 to 10 days after birth. A one to three-year vocational education is necessary to become a post-natal care nurse. The postnatal care nurse supports the mother in breastfeeding, gives information and advice on how to take care of the baby, checks on the health of the mother and baby, and takes care of light household tasks so that the mother is able to recover from giving birth. Midwives are remain responsible for the care of the mother and the baby during the early postnatal period (8 to 10 days after birth) and perform medical checks during several home visits.

After the early postnatal period, the postnatal care nurse or the midwife transfers care for the baby to the local youth health care clinic. Across the first four years of the child's life, parents visit the Youth Health Care clinic about 15 times in total. The youth health care nurses educate parents about parenting and vaccinate children against common diseases; pediatricians at the youth health care clinic are responsible for care related to children's social, physical, and cognitive health and development[3].

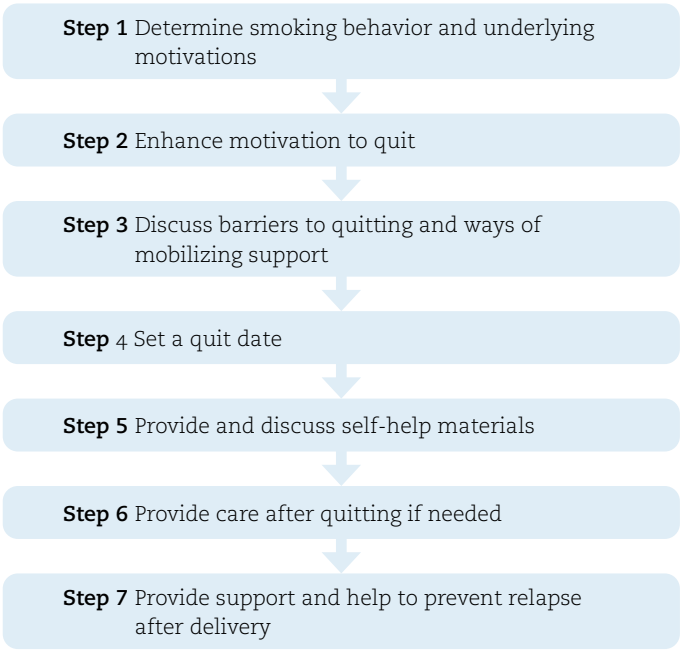
Regional cooperation in maternity care

Most healthcare professionals involved in maternity care work together in regional obstetric partnerships, which are mainly centered around hospitals. Within these regional obstetric partnerships, healthcare professionals make agreements about referral systems and clinical responsibilities. In many partnerships, agreements are made regarding the best smoking cessation care. In 2019, a quantitative study in the Netherlands showed that 27 of the 32 investigated regional obstetric partnerships have developed local care pathways to improve chain cooperation between birth care providers for smoking pregnant women [9].

INTEGRATION OF SMOKING CESSATION COUNSELLING IN THE DUTCH MATERNITY CARE SYSTEM

Since 2012, primary care midwives are required by the Dutch Healthcare Inspectorate [10] to counsel pregnant women and their partners to quit or reduce smoking; this counseling is guided by an intervention strategy called the V-MIS protocol [11, 12]. The V-MIS protocol is comprised of seven steps (Figure 4) and is based on behavioral change theories [13–16]. The protocol has been developed specifically for midwifery care settings [17].

Figure 4. Steps of the V-MIS protocol



The V-MIS protocol has been shown to be an effective method of delivering smoking cessation assistance to pregnant women. A randomized controlled trial (RCT) in 1996 investigated the effectiveness of the V-MIS protocol, which found that 12% of the smoking pregnant women counselled using the V-MIS protocol remained continuously abstinent during pregnancy, versus 3% in the usual care group [11]. Although the V-MIS protocol is effective in smoking cessation among pregnant women, recent research uncovered barriers to the implementation of the protocol [18]. The common barriers encountered were lack of time and resources, and a lack of motivational interviewing skills.

Since smoking is most prevalent among pregnant women in low socioeconomic status (SES) populations [2], implementation of the V-MIS protocol in midwifery practices for pregnant women with low literacy skills or in low SES populations is facilitated by an extended version of the V-MIS protocol (see 'The PROMISE Project').

3 For more information on smoking cessation counselling in the youth health care clinics, see the English-language summary 'Dutch Youth Health Care: From smoke free houses to smoke free parents' or the full Dutch-language report 'Verkenning JGZ: Preventiebeleid over roken'.

THE PROMISE PROJECT

In 2016, the Trimbos Institute, Pharos, and Lung Foundation Netherlands initiated the PROMISE project. Its primary aim was to adapt the current V-MIS counseling protocol for midwives and OB-GYNs in the Netherlands to make it more applicable for low SES women. The project tested innovative approaches to help pregnant women with low literacy skills or with low educational levels quit smoking [19].

The following elements were added to the existing protocol:

- a one-day face-to-face training session for midwives, which is led by an experienced smoking cessation counselor,
- a detailed counseling manual for midwives, containing suggested conversation threads for discussing smoking cessation with pregnant women and their partners,
- the use of CO-measurements during the consultations as a starting point for conversations about the health dangers of smoking during pregnancy, and
- the use of storyboard leaflets about smoking cessation. Storyboard leaflets are visual stories, accompanied by easy-to-understand texts. They are designed to help women with low health literacy skills in particular.

The core elements of the PROMISE protocol are currently available in the Netherlands and are used in daily midwifery practice.

A stepped-wedge RCT design was used to test the effectiveness of the PROMISE protocol. Preliminary data show a positive effect of the PROMISE protocol on the provision of smoking cessation counseling by midwives; the final results are expected to be published in a scientific journal article in 2021.

SMOKE-FREE START TASKFORCE

The *Smoke-Free Start Taskforce* is a nationwide consortium of 9 professional associations and several expert partners involved in birth and youth health care in the Netherlands. The goal of the Taskforce is to stimulate smoking cessation in the Netherlands before, during and after pregnancy. The Taskforce promotes multidisciplinary smoking cessation care. Professionals involved in the Taskforce work in primary and secondary birth care, maternity care, youth health care, addiction care, and smoking cessation services.

Start of the Smoke-Free Start Taskforce

In 2015, the Ministry of Public Health, Welfare and Sports (VWS) in the Netherlands hosted a meeting about high infant mortality rates in the Netherlands. Invited healthcare professionals and experts on birth and youth health care then initiated a nation-wide 'Smoke-Free Start' movement among professionals working in maternity health care. The Taskforce presented a joint strategy to the Minister of Health in 2016. The main element of this strategy was to develop and implement materials that meet the needs of healthcare professionals in maternity and youth care on this topic.

How is the Smoke-Free Start Taskforce organized?

The Ministry of Public Health, Welfare and Sports funds the Taskforce and played a coordinating role for the first four years. After a few years, when the Taskforce was established, the role of the Ministry reduced. The Taskforce is currently still funded by the Ministry, but coordination is now done by the chairman of the Taskforce and the Smoke-Free Start program, which is part of the Trimbos Institute. In collaboration with the Taskforce, the Smoke-Free Start program offers advice and training sessions to professionals in birth and youth health care on helping (future) parents with smoking cessation before, during, and after pregnancy. The program develops and disseminates supporting materials and products about smoking cessation for healthcare professionals and for (future) parents as well, including as brochures, information sheets and posters, and videos for waiting rooms.

How did the Taskforce achieve participation of healthcare professionals?

In the first few years, the Taskforce put significant effort into developing and signing a manifest by individual healthcare professionals. With this manifest healthcare professionals endorse the importance of a smoke-free start. The manifest made the Taskforce nationally known and

Figure 5. Members of the Smoke-Free Start Taskforce at the conference 'Smoke-Free Start' in 2017

created awareness on the topic of smoking during pregnancy among healthcare professionals. The involvement and dedication of healthcare professionals who have become local ambassadors for a smoke-free start contributes to the success of the Taskforce. As of June 2021, the Taskforce works together with more than 1200 local ambassadors who participate in the Smoke-Free Start. They receive materials and support to promote a smoke-free start to their co-workers and within their organizations.

"The success of the Taskforce may be explained by the commitment of healthcare professionals and associations and the important supporting role of both the Ministry and the Trimbos Institute.„

Clasien van der Houwen, chairman of the Taskforce Smoke-Free Start

What are the main activities of the Taskforce?

The Taskforce stimulates smoking cessation before, during, and after pregnancy by promoting multidisciplinary smoking cessation care, putting smoking cessation on the agenda of professionals and the wider public, and increasing knowledge of professionals and the public on the importance of smoking cessation to prevent harm in children. The Taskforce initiated the following activities:

- The development of a *multidisciplinary e-learning 'smoke-free start'* (2017). The e-learning has been developed for all health professionals working with (future) parents to strengthen skills regarding smoking cessation care and to support working according to a multidisciplinary approach. In brief videos, healthcare professionals, such as midwives and pediatricians, describe the importance of this topic within their own profession. Case study videos demonstrate different conversation techniques. Registered local ambassadors receive the e-learning for free and can share the e-learning with up to 10 colleagues. As of April 2021, almost 5000 healthcare professionals have completed the e-learning; evaluations have shown that participants are very positive about the e-learning. An additional e-learning on how to have an effective conversation with (future) parents on quitting smoking was launched in 2020.
- The implementation of a *telephone smoking cessation counselling intervention ('Smoke-free Parents')*. This is a convenient and time-saving tool which healthcare professionals may use if they want to refer (future) parents to telephone smoking cessation support by a coach. The Smoke-free Parents intervention was investigated by the Trimbos Institute and proven to be effective in helping parents to quit smoking [20].
- The development of *a guideline* (in Dutch) for all healthcare professionals working with pregnant women. The guideline includes specific recommendations for the treatment of tobacco addiction and smoking cessation support in pregnant women. The guideline contains information on when and to whom birth care professionals can refer a pregnant woman or her partner for smoking cessation care. It also contains information on the use of nicotine replacement therapy (NRT) in pregnancy. In the past it was unclear to healthcare professionals if NRT could be used by pregnant women. The guideline gives a clear answer to professionals and states that NRT can be used by pregnant women under guidance of a coach who has experience with NRT.
- Organizing of *conferences* with informative sessions and workshops to support healthcare professionals who want to help (future) parents to stop smoking.
- Hosting a ***website*** (in Dutch) with information on how to become a Smoke-Free Start ambassador, which includes training information and links, a toolkit with brochures, information sheets, posters, animations and other materials for healthcare professionals.
- Launching *a tool for* '***digital care pathways***' (in Dutch) with practical tips, examples, and materials for healthcare professionals to refer pregnant women who smoke for smoking cessation counselling and with tips for policymakers to create a multidisciplinary smoking cessation policy within a regional obstetric partnership.

ANIMATED VIDEO ON THIRD HAND SMOKING

The Trimbos Institute developed an animated video for healthcare professionals on the health effects of thirdhand smoke. This **short video** (in Dutch) explains why it is important that healthcare professionals discuss smoking cessation with parents. The Taskforce disseminates this video among healthcare professionals.

NETHERLANDS EXPERTISE CENTER FOR TOBACCO CONTROL

The Netherlands Expertise Center for Tobacco Control (NET) was established in 2013 as part of the Trimbos Institute, an independent non-profit public health institute.

Its mission is to contribute to smoke-free societies by developing and applying knowledge about tobacco use, health risks related to tobacco use and tobacco exposure, and evidence-based tobacco control interventions in the Netherlands and internationally. NET works to transfer knowledge from research findings into practice and policy recommendations.

CONTACT

If you have any questions regarding this topic or if you are interested in what the NET can do for you, please contact: prof. Marc Willemsen (**MWillemsen@trimbos.nl**), Head of the Netherlands Expertise Center for Tobacco Control (NET) at the Trimbos Institute.

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Design & production
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Images
www.gettyimages.nl

This publication has been supported by the Dutch Ministry of Health, Welfare and Sport. AF1929.