PATH evaluation report



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PerinAtal menTal Health (PATH) Partnership

PATH is a cross-border consortium consisting of 13 organisations coming from the UK, the Netherlands, France and Belgium. The PATH project was approved and funded by the EU Interreg 2 Seas programme (Social Innovation – 2019–2022), with co-funding from the European Regional Development Fund (ERDF). The project was supposed to run for four years from the start of 2019 to the end 2022, but was extended to 2023 because of the COVID-19 pandemic.

The Health and Europe Centre

The Health and Europe Centre, Lead Partner, Kent, UK

PATH lead partner The Health And Europe Centre, a social enterprise, is an experienced partner in European-funded projects. Its knowledge and experience is used to support all kinds of health organisations in Europe.

The centre offers various collaboration and learning opportunities and has more than a decade of experience in applying for, managing and implementing EU-funded health projects. This involves intensive collaboration with colleagues from other countries.

Devon Mind, Project Partner, Plymouth, UK



Devon Mind fights for mental health in Devon. Devon Mind is an independent mental health charity affiliated to the UK National Mind Association. They provide advice, information and support to anyone in Devon who has a mental health problem. They also campaign to improve local support services, raise awareness and promote understanding of mental health in Devon.

Southampton City Council, Project Partner, Southampton, UK



SCC works in strategic partnership with the government, regional government agencies, business, academia, social services and citizens to secure inward investment and growth, stimulate major developments, support businesses and increase skills and employment through social innovation.

SCC's 'Employment Support Team' provides help, advice and guidance to people with disabilities or multiple, complex needs in finding sustainable employment or training. To support women with, or at risk of, mild perinatal mental illness, caseworkers work with local mental health services.

Odisee University College, Project Partner, St. Niklaas, BE



Odisee University College offers a total of 25 undergraduate programmes for more than 10,000 students across six campuses in Flanders. The research within the Healthcare cluster is divided into six spearheads: nutrition, elderly care, active community and lifestyle interventions, care innovation, perinatal and family care and educational modules of the future. The PATH project is linked to the perinatal and family care spearhead, bringing in the midwifery programme's research expertise in health promotion, mobile applications, online assistance and support for parents with a premature or sick baby..

Kent County Council, Project Partner, Maidstone, UK



KCC is the provincial government which comprises 12 districts and 300 municipalities.

KCC's public health department has experience in commissioning and coordinating health promotion services to prevent and support people with mental health problems, as well as evaluating and managing services in the county. They also advise local health and social commissioners on improving outcomes for health and wellbeing.

Institute of Health Visiting, Project Partner, Emsworth, UK



The Institute of Health Visiting is an independent UK charity and professional body promoting excellence in health visiting practice to benefit all babies, children, families and communities.

The premise of IHV is that a healthy parent and a healthy parent-child relationship is the basis for good mental health of the child throughout life: physical health is not possible without mental health.

Kent and Medway NHS and Social Care Partnership Trust, Project Partner, Maidstone, UK



Kent and Medway NHS and Social Care Partnership Trust (KMPT) provides a range of integrated mental health services to around 1.8 million people in Kent and Medway.

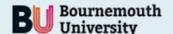
The KMPT Perinatal Mental Health Community Service (PMHCS) specialises in the assessment, diagnosis and treatment of women with moderate to severe mental health problems before, during and after pregnancy. As an extension of this, mental health services are provided at the Rosewood Mother and Baby Unit, the regional inpatient unit. This service provides multidisciplinary input, with evidence-based practices including psychological therapies, support and interventions for women and their families in the perinatal period.

AP Hogeschool, Evaluatie Partner, Antwerpen, BE



AP Hogeschool is a university college in Antwerp that conducts practice-oriented and innovative research, thus contributing to society and education. The undergraduate midwifery research team is active in several ongoing research projects and scientific research projects, which are in line with the theme of PATH: maternal life balance during the transition to parenthood, perinatal mental health care and midwifery care among pregnant women in a vulnerable situation. The programme has its own community hub (Nova Vida) and organises free activities and workshops for Antwerp women and their partners. The activities focus on finding, establishing and maintaining health and an optimal life balance for women at all stages of their life cycle, through information and support, including from peers. PATH aligns with the belief that shared knowledge, expertise and experiences are a shared strength. AP Hogeschool received additional funding from the province of Antwerp to participate in the PATH project to support the emotional well-being of new parents in the province of Antwerp.

Bournemouth University, Project Partner, Bournemouth, UK



Bournemouth University is one of the top universities in the world and awarded the Queen's Anniversary Prize for Higher Education. The PATH project team falls under the Faculty of Science and Technology, which has advanced equipment for VR, AR and game technologies with capacity to develop proprietary software for research and innovation.

Vzw Gehechtheid in Ontwikkeling, Project Partner, Antwerp, BE



Vzw GiO, Attachment in Development, an association without lucrative purpose, was founded to raise social and political awareness of the importance of a warm and secure attachment bond between parents and young children.

The aim of vzw GiO is to develop initiatives that promote lasting attitude changes around the fundamental conditions for optimal early development. This is done through training and education, low-threshold treatment initiatives and research.

Maasstad Hospital, Project Partner, Rotterdam, NL



Maasstad Hospital is one of the seven Santeon hospitals in the

Netherlands. Regionally, Maasstad Hospital works together in the Rotterdam-South

obstetric alliance (VSV). In addition to Maasstad Hospital, the VSV also includes the

lkazia Hospital, eight maternity care organisations and 26 obstetric practices. The VSV

also works closely with the various Youth and Family Centres, which have locations throughout the city and the surrounding villages.

EPSM Lille Métropole – WHO Collaborating Centre, Project Partner, Lille, FR



WHOCC, a service of the Lille-Métropole Public Mental Health

Organisation, is one of 48 WHO Collaborating Centres specialised in mental health in the world and the only one in France.

For the period 2022-2026, the WHOCC is designated to work on the following four pillars: (1) Help WHO promote and document good practices in community mental health services; (2) Support and develop the WHO programme for evaluating quality and respect for the rights of people with mental health problems in France and in French-speaking countries; (3) Help WHO promote user and citizen participation in mental health services, research and training; (4) Contribute to the knowledge and development of e-mental health as an innovative technology.

Karel de Grote Hogeschool, Project Partner, Antwerp, BE



KdG Hogeschool is a Catholic college in Antwerp with about 13,500 students and about 1,400 employees.

KdG Hogeschool conducts practice-oriented research in obstetrics and nursing, with the aim of professionalising these fields through the development, implementation and valorisation of practical interventions in the work field and society. A specific research line focuses on improving the knowledge and position of perinatal care within primary care in Flanders.

KdG has an extensive network of both regional and national professional associations, hospitals, primary care organisations, as well as patient organisations.

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Note: Some of all project partners are pictured in the above photo.

All further photographs included in the report, have been reproduced with the permission of the individuals.

List of abbreviations

- 2 Seas 2 Seas region in which the project was implemented, as detailed on the following page
- BE Belgium
- BRS Brief Resilience Scale
- DLQ Depression Literacy
 Questionnaire
- DSS Depression Stigma Scale
- EPDS Edinburgh Postnatal
 Depression Scale
- EPSM l'Etablissement Public de Santé Mentale
- FR France
- GAD-2 Generalised Anxiety
 Disorder 2-item
- GiO Attachment in Development
- GSE General Self-Efficacy Scale
- HEC Health and Europe Centre
- HRA Health Research Authority
- IHV Insititute of Health Visiting
- KCC Kent County Council
- KdG University College Karel de Grote Hogeschool
- KMPT Kent and Medway NHS and Social Care Partnership Trust
- MAAS Maternal Antenatal
 Attachment Scale
- MHSAS Mental Health Seeking
 Attitude Scale
- MHSIS Mental Health Seeking
 Intention Scale
- MPAS Maternal Postnatal
 Attachment Scale

- NHS National Health Services
- PAAS Paternal Antenatal
 Attachment Scale
- PATH PerinAtal menTal Health
- PIMMHS Professional Issues in Maternal Mental Health Scale
- PMHCS Perinatal Mental Health
 Community Service
- PMI Perinatal Mental Illness
- PPAS Paternal Postnatal
 Attachment Scale
- PSP GGZ Practice Specialist
 Perinatal Mental Health Care
- RSES Rosenberg Self-Esteem
 Scale
- SCC Southampton City Council
- SPSS Statistical Package for Social Sciences
- UA University of Antwerp
- UGent University of Ghent
- UK United kingdom
- VBOV professional organisation for midwives
- VOKA Flemish Entrepreneurs'
 Chambers Alliance
- VR Virtual Reality
- VSV Obstetric Partnership
- WHO World Health Organisation
- WHOCC WHO Collaborating
 Centre For Research and Training
 in Mental Health

Glossary



- 2 Seas region the region in which the project was situated, around the North Sea and English Channel (see map)
- Coping the way a person deals with problems and stress
- Peer supporter(s) someone with the same or similar experience as the person receiving
 or needing the support who provides emotional and informational support. The peer
 supporter is not necessarily a professional, rather an expert by experience.
- Perinatal period around birth, from the last weeks of pregnancy to the first weeks postpartum
- Postpartum period after childbirth
- Prenatal period before birth, during pregnancy
- Virtual Reality a computer-generated environment with scenes and objects that appear lifelike

Legend

- A positive effect was demonstrated based on the pre- and post-measurement evaluation.
- No difference was seen between the pre- and post-measurement evaluation.
- A negative effect was demonstrated based on the pre- and post-measurement evaluation.
- ? There were no measurements or not enough respondents to show an effect.

Summary

A pregnancy or a new baby brings with it great adjustment and responsibility. Research shows that 1 in 5 women in the 2 Seas region struggle with depressive symptoms and/or anxiety during pregnancy and the first year postpartum (1). This was the initial trigger for the European PATH project. From its kick-off in 2019, a variety of initiatives were undertaken to give expectant and brand-new parents a helping hand. This was done with a focus on helping them prepare physically, socially and mentally for the many changes a new family brings.

Within the European PATH project, a rich range of tools and courses have been developed for parents, professionals and employers. All these initiatives focus on preparing parents as well as possible for the emotional rollercoaster of parenthood. The PATH consortium involves 13 partners from France, Flanders (Belgium), the Netherlands and the UK. PATH started at the end of March 2019 and has received more than €8 million in European funding through the international Interreg 2 Seas programme. Everyone within this project felt the need to work towards improving perinatal mental health and, above all, a lot of enthusiasm to achieve great results.

One of the important aspects of the project was the development of an online digital platform, the online hub. This offers a wealth of information to support both families and professionals in the field of perinatal mental health. The platform consists of a lot of information, online tools, e-learnings and links to trainings. In addition, face-to-face trainings were also developed for different target groups in the four different countries.

All these tools and trainings were mapped according to their content and participants of the target groups and different outputs were evaluated with pre- and post-measurements. The measurements allowed us to describe what the socio-demographic data of respondents were, as well as depressive symptoms, stigma regarding perinatal mental health, knowledge about depression, feelings of anxiety...

Through this evaluation, we can conclude that some trainings and tools yielded a good result and thus achieved the predefined objectives, such as: reducing depressive symptoms, reducing stigma and increasing knowledge and awareness.

Overall, this PATH project was a great opportunity to put perinatal mental health on the map within the four different countries. There was a clear focus on the needs of parents and parents-to-be and professionals, from which many useful, innovative and knowledge-broadening tools and trainings were developed.



Introduction



Pregnancy and parenthood are major life events, involving both physical and emotional changes. While the period before and around the birth of their child is experienced by most people as a fun, exciting time, for others it is also often a stressful period, some more severe than others. Prenatal stress is often caused by body changes and psychological changes, but upcoming childbirth, family, financial and professional adjustments can also cause stress (1–5).

Psychological problems occurring during pregnancy may act as a predictor for developing postpartum depression (6-8). Postpartum depression is one of the most well-known conditions that fall under the heading of PMI. PMI affects both the mother, her child, the family and consequently the whole society. During the child's first thousand days (from pregnancy to 2 years), the foundations of the rest of life are laid, in terms of attachment, social and emotional development. "If we ensure that our children get a good start, we create a healthier society," says Binu Singh, child psychiatrist attached to the University Psychiatric Centre KU Leuven (9).

In addition, motherhood appears to have a major impact on mothers' life balance. This refers to the balance between work, family life, physical and mental health. A positive life balance is needed to feel physically, emotionally and socially healthy (10). Reduced life balance is associated with reduced emotional well-being (11).

In the 2 Seas region, there is already a fair amount of awareness around severe forms of PMI. Different countries have different approaches to the problem, yet its prevalence remains unchanged and there appear to be large groups of people with mild and moderate symptoms. Rates of PMI in the four partner countries are similar and unchanged for years, while in other parts of Europe they are significantly lower. Individual countries have failed to tackle the problem successfully. A broader approach can help by learning from each other, sharing experiences and learning what might work in one region can also be useful and relevant for another. Bringing together different expertise, across national borders, can be a solution to raise awareness of the mild and moderate symptoms of PMI and offer appropriate solutions for them.

01

The PATH Project

"The <u>PATH</u> project was developed through cocreation to meet the common need of the four partner countries to raise awareness of PMI and provide a solution to persons with mild and moderate symptoms."

The project is a crossborder partnership with 7 partners from the UK (HEC, Devon Mind, SCC, KCC, IHV, KMPT, Bournemouth University), 1 partner from the Netherlands (Maasstad Hospital), 1 partner from France (EPSM Lille Métropole) and 4 partners from Flanders (Belgium) (AP Hogeschool Antwerp, Odisee Hogeschool, vzw GiO, KdG Hogeschool). Besides the project partners, there are also 24 observing, remotely involved partners: 5 in Flanders, 7 in France, 5 in the Netherlands, 5 in the UK, 1 in Greece and 1 in the USA. The project started in February 2019 and ran until December 2022.

PATH wanted to contribute to the prevention of mild and moderate forms of PMI and the ability to effectively screen and successfully support women, families and caregivers with regard to PMI. For this purpose, a holistic approach was envisioned, elaborated in two work packages, consisting of six different outputs. These outputs consisted of various trainings and interventions developed within PATH. Below is an overview of the work packages with corresponding outputs. The different partners gave their own interpretation to each output, based on the local context and needs, with input from the other partners. A detailed overview of the different interventions and trainings per country, can be found in the section: results and experiences.

The overall objectives of the PATH project that were achieved are:

- Developing an inclusive, holistic health structure: demand-driven and in collaboration with existing patients and expectant/new parents
- Supporting parents before birth in preparing for their new role
- Thanks to PATH's various tools, including anonymous online services, women were able to access support in a way that best suited them
- Healthcare professionals' skills improved so they can effectively treat PMI
- A new multimedia international support hub has been developed, including gaming and avatars, to help families develop awareness & recognise, prevent and overcome PMI
- Scientifically evaluated PMI training courses (building on the best available evidence)
 to increase knowledge and upskill caregivers/employers/parents have been developed
 and offered
- A multimedia campaign to raise awareness and destigmatise PMI
- Peer support for new families, increasing self-reliance through the wider community and social networks
- Care/support from the community and digital tools in monitoring PMI have been offered
- Tools for help and support to parents and parents-to-be, (student) caregivers, employers and the general public have been offered
- A collective understanding of PMI was created within the 4 participating regions
- A system-wide solution with long reach

These overarching objectives were achieved within two work packages.

The **first work package** aimed to design, deliver and implement new, sustainable online services with the aim of early recognition and prevention of mild and moderate symptoms of PMI and supporting the mental well-being of new families. This was implemented through three outputs.

Output 1: Multimedia campaign to raise awareness and destigmatise PMI:

Within the first output, a multimedia campaign achieved awareness, recognition, prevention and destigmatisation of perinatal mental health. This primarily among parents and parents-to-be, but also among the general public. The different partner countries approached this in different ways.

The target group of the multimedia campaign consisted of pregnant and postpartum women, their partners, family, friends and consequently the whole of society.

Output 2: a set of online resources for healthcare professionals and employers:

Within this output, a set of online resources was developed with the aim of raising awareness of PMI to help healthcare professionals, support workers and employers recognise PMI more quickly and destignatise PMI.

The target audience for these online tools are healthcare professionals and employers who come in contact with pregnant and postpartum women and their families.

Output 3: a multimedia, international support platform to help new families create parental awareness and recognise, prevent and treat PMI:

The aim of new output is to develop, test and implement a new, online multimedia hub on which young families can find the necessary help to raise awareness around PMI, prevent PMI and possibly treat it.

The target audience of this hub is pregnant and postpartum women, their partners and families, care providers and employers who come in contact with pregnant women and consequently the whole society.

The **second work package** aimed to develop, deliver and implement new, sustainable face-to-face interventions. These face-to-face interventions aim to raise awareness around PMI, prevent PMI and support the mental well-being of new and young families.

Given the COVID-19 pandemic, some of these outputs were partly organised online, in order to comply with locally applicable corona measures.

— Output 4: Support sessions for new/expectant families:

The aim of this output was to develop, run and implement a series of live sessions to support new families. By promoting prepared parenting in these sessions, the project aimed to raise awareness around PMI, help parents recognise and prevent PMI more quickly and thus reduce PMI. Also, this output aimed to increase parents' self-efficacy, support parents to seek help faster, increase resilience and promote perinatal attachment.

The target group of this output consisted of pregnant and postpartum women and their partners.

Output 5: face-to-face training course for healthcare professionals:

The aim of this output was to develop, run and implement a series of live sessions to support (student) healthcare professionals who come into contact with new families. These sessions aimed to increase (student) healthcare professionals' self-confidence around recognising PMI, referring where necessary and having conversations around PMI.

The target group of this output consisted of (student) healthcare professionals who come in contact with new families.

— Output 6: peer support training and a network of intergenerational support groups:

The aim of this output was to develop, conduct and implement training for peer supporters of new families and to develop a network of intergenerational support in the community. With this, the project aimed to deploy trained peer supporters who feel confident enough to interact with new families and recognise PMI and refer the new families where necessary.

This target group consisted of people close to new families who could act as (informal) peer supporters.

02

Evaluation method

The evaluation method and the way data were collected was determined according to the different outputs to be achieved that were predefined in this project. The evaluation method was presented at the various crossborder meetings and steering group meetings at the beginning of the project in order to create support within the entire PATH group. Online questionnaires were used to evaluate the different outputs in the different target groups: (i) mothers and mothers-to-be and their (ii) partners (fathers, co-parents, co-mothers), (iii) employers, (iv) caregivers and (v) peer supporters (peers or buddies). Ethical approval was granted (SHW_19_34) by the UA on 9 October 2019 and information was collected from November 2019 to July 2022.

For the UK, separate ethical approvals were granted by the HRA on 09 September 2021 (IRAS project ID: 297553) and on 13 May 2022 (IRAS project ID: 308882)

Information collection

Data was collected in the Netherlands, Flanders and the UK. Recruitment of respondents took place through the project and project partners' networks and the observing partners, midwifery students, posters, banners, flyers, websites, social media (e.g. Twitter©, LinkedIn©, Facebook©, Instagram©), study days, conferences, local mental health initiatives and media (newspapers, local TV and radio) and during the project partners' activities, this by the partners themselves. Links and QR codes to the questionnaires were distributed by the project partners and observing partners. Individuals from the different target groups voluntarily participated in the questionnaire, could end their participation at any time and gave prior consent via an online informed consent form.

Data was collected before and after the use of a PATH-developed intervention or training (using a pre- and post-measurement). Existing, validated questionnaires in English and Dutch language associated with the main theme "perinatal mental health and well-being" and its associated outputs were used. Consistent use of the same questionnaires among the different target groups allowed effective comparisons of outcomes. Socio-demographic and personal data was collected from each target group, based on previous research conducted to study determinants and effects of multiple (interacting) interventions and intervention components (12-15).

Questionnaires

An overview of the questionnaires used in the different target groups and work packages can be found below:

- The **Whooley** questionnaire screens for the presence of depressive symptoms. The questionnaire consists of 2 questions answered yes or no. A positive answer to at least 1 question is considered a positive test (16).
- The EPDS screens for the possible presence of depressive symptoms. The questionnaire consists of 10 items with 4 response options (0-3), from which the respondent chooses the answer closest to how he or she felt in the past week. The score has a range from 0 to 30, the higher the score, the more likely the respondent is to develop depressive symptoms (17).
- The GAD-2 is a short and easy-to-implement screening tool for generalised anxiety disorder. The questionnaire consists of 2 questions that probe the respondent's feelings of anxiety in the past 2 weeks. There are 4 response options ranging from 0 (not at all) to 3 (almost every day). A score on both questions of 3 or more is considered a positive test (18).
- The **DSS** measures people's attitudes towards depression. The questionnaire is divided into 2 times 9 items where the first part is about the extent to which people themselves have stigmatising attitudes towards people with depression (personal stigma). The second part of the questions deals with extent to which people think others in society have stigmatising attitudes towards people with depression (social stigma). It is a 5-point Likert scale, with a range of 18 to 90 for the full scale and 9 to 45 for the subscales. A higher total score indicates higher levels of stigma (19).
- The **DLQ** measures knowledge about depression and consists of 22 items that are true or false. The respondent can score each item with one of the following three options: true, false or don't know. Each correct answer earns one point. Higher scores indicate higher mental health knowledge regarding depression (19,20).
- The MAAS is a self-report questionnaire consisting of 19 items for assessing mother-child bonding during the antenatal period. Each question is scored from 1 to 5, with higher scores reflecting stronger bonding. The total score is calculated by determining the sum of all items, it ranges from 19 to 95 (21).

- The MPAS is a self-report questionnaire consisting of 19 items for assessing mother-child bonding in the postnatal period. Each question is scored from 1 to 5, with higher scores reflecting stronger attachment. The total score is calculated by determining the sum of all items, it ranges from 19 to 95 (22).
- The PAAS is a self-report questionnaire consisting of 16 items for assessing father-child bonding in the prenatal period. Each question is scored from 1 to 5, with higher scores reflecting stronger attachment. The total score is calculated by summing all items, it ranges from 19 to 80 (21).
- The **PPAS** is a self-report questionnaire consisting of 19 items for assessing father-child bonding in the postnatal period. Each question is scored from 1 to 5, with higher scores reflecting stronger attachment. The total score is calculated by determining the sum of all items, it ranges from 19 to 95 (23).
- The **BRS** was developed to assess the level of resilience. The 5 statements are answered using a Likert scale from 1 (totally disagree) to 5 (totally agree). The higher the score the more resilience (24).
- The MHSAS measures respondents' overall evaluation of seeking help from a mental health professional when faced with a mental health complaint. The questionnaire consists of 9 items that can be scored from 1 to 7. A higher score indicates a more positive attitude towards seeking help (25).
- The **MHSIS** measures respondents' intention to seek help from a mental health professional if they had a mental health problem. The measurement instrument consists of 3 items that can be scored from 1 to 7. A higher score indicates greater intention to seek help (26).
- The RSES is a 10-item scale that measures global self-esteem/self-worth by surveying both positive and negative feelings. All items are answered using a Likert scale from 1 (totally agree) to 4 (totally disagree). In the analysis, the scores of items 2, 5, 6, 8 and 9 were reversed. The scores of all items were summed and higher scores indicated higher self-esteem (27).
- The PIMMHS is a 10-item questionnaire that identifies the training needs of birth care providers regarding maternal mental health. The respondent chooses from the response options: strongly disagree - disagree - agree - strongly agree (28).
- The GSE is a 10-item questionnaire that measures the measure of self-efficacy (self-report). The 10 questions are scored using a Likert scale from 1 (completely incorrect) to 4 (completely correct). The total score is calculated by summing all items. For the GSE, the total score ranges between 10 and 40, with a higher score indicating more self-efficacy (29).

^{*} These were not all deployed simultaneously, but focused on the different outputs in the different work packages and activities.

Impact of COVID-19 pandemic

At the start of the COVID-19 pandemic (2020), four questions regarding the impact of COVID-19 were added to the various questionnaires. The following statements were displayed where participants could score them from 1 (no impact) to 10 (high impact). The averages of these scores were displayed in each case.

- The coronavirus has an effect on my thoughts.
- The coronavirus has an effect on my state of mind (wellbeing, mental health).
- The coronavirus has an effect on my behaviour.
- The coronavirus has an effect on my physical health.

Work package 1 - online services

Design, deliver and implement sustainable online services to increase recognition and prevention of perinatal mental health and support the mental well-being of new families.

— Objectives:

- 1. Raising awareness of PMI (among all stakeholders)
- 2. Recognise, prevent, cope with, and (self)manage PMI (in mothers and mothers-to-be: all women, women vulnerable to PMI and women with PMI)
- 3. De-stigmatising PMI (including self-stigma and social stigma and discrimination/labelling) (among all stakeholders)
- 4. Mothers' successful return to work after maternity leave or (early) successful return after absence from leave
- 5. Reach 600,000 relevant people in the Interreg 2 Seas region

WP1.1 Multimedia campaign

Develop, test and roll out a multimedia campaign to raise awareness of PMI, counter its stigma and promote prepared parenthood.

EVALUATION OUTPUTS:

- 1. Awareness of PMI
- 2. Recognition and prevention of PMI
- 3. De-stigmatisation of PMI
- 4. Number of people reached

TARGET AUDIENCE:

- Pregnant women
- Postpartum women (between 6 weeks and 1 year postpartum)
- Partners (of pregnant and postpartum women)

WP1.2 Online services - healthcare professionals and employers

Develop, test and provide a range of online resources for healthcare professionals and employers.

EVALUATION OUTPUTS:

- 1. Awareness of PMI
- 2. Recognition of PMI
- 3. De-stigmatisation of PMI

TARGET AUDIENCE:

- Healthcare professionals (e.g.: midwives, nurses, doctors, ...)
- Employers

WP1.3 Online services - parents and parents-to-be

Develop, test and roll out a new online and international support centre to help new families develop parental awareness and recognise, prevent and overcome PMI.

EVALUATION OUTPUTS:

- 1. Highlighting PMI
- 2. Recognising PMI
- 3. PMI de-stigmatising
- 4. Preventing and/or reducing PMI

TARGET AUDIENCE:

- Pregnant women
- Postpartum women (between 6 weeks and 1 year postpartum)
- Partners (of pregnant and postpartum women)

Work package 2 - Face-to-Face services

Design, deliver and implement new, sustainable face-to-face services to increase recognition and prevention of PMI and support the mental well-being of new families.

WP 2.1 Face-to-face services - parents and parents-to-be

Design, test, and embed a course of support sessions for 4,000 new families in mixed groups of pregnant women and parents.

OBJECTIVES:

- 1. Increasing the self-reliance of the mother and her partner during pregnancy
- 2. Increasing the self-reliance of the mother and her partner during early parenthood
- 3. Increasing awareness and recognition of PMI (symptoms) by the mother and her partner
- 4. Increasing awareness of mother and her partner about the impact of PMI on the (new) family unit
- 5. Increasing maternal help-seeking behaviour for PMI
- 6. Increasing perinatal attachment (prenatal and postnatal)
- 7. Increasing resilience experienced by the mother and her partner
- 8. Reducing PMI, family stress and parenting stress

EVALUATION OUTCOMES:

- 1. Self-reliance of parents
- 2. Recognition of PMI
- 3. PMI levels
- 4. Resilience
- 5. Number of people reached

TARGET AUDIENCE:

- Pregnant women
- Postpartum women (between 6 weeks and 1 year postpartum)
- Partners (of pregnant and postpartum women)

WP2.2 Face-to-face services - healthcare professionals

Develop, test and roll out face-to-face training courses for healthcare professionals..

OBJECTIVES:

- 1. Increased self-confidence among professionals in recognising PMI (symptoms)
- 2. Increased self-confidence among professionals in referring to relevant support
- 3. Increase in recognition of PMI by professionals

- 4. Increase in provision of support and support resources by professionals
- 5. Feeling increase in confidence in having conversations about PMI by professionals
- 6. Increase in self-reliance of professionals

EVALUATION OUTCOMES:

- 1. Healthcare providers' self-confidence in recognising PMI (symptoms)
- 2. Self-confidence in healthcare professionals in referring to relevant sources of support
- 3. Self-confidence in having conversations about PMI
- 4. Trained healthcare professionals
- 5. Number of meetings

TARGET AUDIENCE:

- Healthcare professionals (e.g. : midwives, nurses, doctors, ...)
- WP2.3 Face-to-face services peer supporters

Develop, test, roll out and embed training for peer supporters and a network of intergenerational community support.

EVALUATION OUTCOMES:

- 1. Self-confidence among peer supporters in recognising PMI (symptoms)
- 2. Self-confidence among peer supporters in referring to relevant sources of support
- 3. Trained peer supporters
- 4. Personal contacts with (prospective) parents
- 5. Number of community networks/groups

TARGET AUDIENCE:

Peer supporters

Data analyses

SPSS® version 25.0 was used to analyse the data. Descriptive analyses are performed with respect to socio-demographic or personal data and scores from the respective questionnaires (prevalence rates). Results are presented descriptively within each country and sub-work package.

Evaluation France

As the French partner joined the project later, it was not possible to adhere to the evaluation methodology described above. The French partner carried out the evaluation of their interventions and trainings themselves and wrote a report on this. This report was included in the results and experiences section (Report France).



PATH in some numbers

- Reached more than 50 million people within the overall population with the multimedia campaign
- More than 440 employers reached with information and training
- More than 7,700 mothers and mothers-to-be who have used the PATH online tools
- Over 7,000 healthcare providers and employers reached with information and training sessions
- More than 450 peer supporters reached
- More than 150,000 visitors on the online hub
- More than 30,000 people reached with PATH special of VROEG magazine

The results are now discussed by output and country. The main results of the pre- and post-measurements are presented here. For more information and descriptive analyses, the appendices can be consulted.



Overall for all realised outputs within PATH, everyone was welcome as long as they fell within the target group – this regardless of gender, origin, age, disability ... The different outputs were publicised by the partners in different ways in order to reach the wider society. In doing so, we met the following objectives:

- Inclusion of different cultures and communities
- Ensuring equality and non-discrimination in access to tools and services
- Selection of participants and users on a non-discriminatory basis

PATH Output 1: Multimedia campaign to raise awareness and de-stigmatise PMI.

In total, we reached a significant number of people with the multimedia campaign within Belgium, the Netherlands and the UK. An overview of the multimedia campaign in the three different countries can be found below.

Flanders, Belgium

This campaign was developed and implemented by KdG University College of Applied Sciences and was launched in January 2022. The multimedia campaign was mainly conducted through social media using the <u>Instagram page 'Mum are you okay?'</u>. This employed the strategy of 'paid media' and used ads. An article was also published in a popular online magazine for mothers and mothers-to-be. Through the campaign on Instagram, testimonials from new parents were posted, along with insights from previous research, complemented by tips & tricks. This campaign was aimed at pregnant women, women in the first year after giving birth, their partners and those around them.



The Instagram account "Mum are you okay?" had 1040 followers.













Instagram 'Mum are you okay?'

In Flanders, 1506 mothers and mothers-to-be and their partners participated in the **pre-measurement** of this work package. 92.1% were mothers and mothers-to-be, 7.9% were partners. Half of the participants (51.5%) completed the questionnaire during pregnancy. On average, they were 24 weeks pregnant. The participants who completed the questionnaire after delivery (48.5%) did so on average 22 weeks after delivery. Among the pregnant women who filled in the pre-measurement, one in three had an increased risk of developing depressive symptoms. Among the women who completed the questionnaire after childbirth, this was about one in five. Among partners, a difference could be seen between male and female partners. 12.8% of male partners and 32.5% of female partners had an increased risk of developing depressive symptoms. In addition to depressive symptoms, stigma, both personal and social, was also examined. In the pre-measurement, personal stigma was found to be lower than social stigma. This may mean that participants felt that they themselves had less stigmatising thoughts on certain topics compared to the general population.

The **post-measurement** was completed by 244 participants in Flanders. The questionnaire was distributed together with the multimedia campaign. Again, the majority of participants were mothers and mothers-to-be (92.2%). Among the pregnant women who completed the questionnaire after seeing the campaign, the probability of developing depressive symptoms was higher than among those who had completed the questionnaire before the campaign started. The probability of developing depressive symptoms among mothers and partners in the first year after childbirth was unchanged after seeing the campaign.

Looking at the measurement before the campaign compared to the measurement after the campaign, we see that stigmatisation decreased. In addition, the 'recognition and awareness' component was also addressed with this multimedia campaign. This was evident from the many responses to testimonials posted on the Instagram© page 'Mum are you okay':

"So beautifully worded and so relatable. I'm glad you sent it in because it's going to please a lot of mums to see that they are not alone with these feelings, just as I am experiencing with this testimony."

"It's okay if it's not okay for a while. So important to express your feelings, open up, definitely don't bottle them up because early motherhood is too beautiful not to enjoy!"

For more information and descriptive analyses see Annex 1.1 - Flanders, Belgium (Table 1).

The Netherlands

The content of the Dutch campaign was developed using results from research, such as literature, questionnaires, interviews, focus groups. Different strategies were applied within this multimedia campaign. Online, work was done through social media (Facebook©, Instragram©, LinkedIn©) and the website MattieClick. In addition, through a Plan-the-campaign, a continuous flow of publications, press releases, podcasts, radio interviews and information was generated for destigmatising the pink cloud in birth care by making mental health discussable. Many of these products can be found on the online hub of the Netherlands. The campaign was launched on 8 June 2021.



Online en Offline

In the Netherlands, 311 mothers and mothers-to-be and their partners participated in the **pre-measurement** of this work package. 83.0% were mothers and mothers-to-be, the remaining 17.0% were partners. Just over half (55.6%) of the participants completed the questionnaire during pregnancy. They were on average 25 weeks pregnant. During pregnancy, the risk of developing depressive symptoms was about 1 in 3. During the first year after delivery, the probability was about 1 in 5. Among partners, a difference was seen between male and female partners. 22.6% of male partners and 36.4% of female partners had an increased risk of developing depressive symptoms. Personal stigma was found to be higher than social stigma. This may mean that participants felt that they themselves had more stigmatising thoughts on certain topics compared to the general population.

In the Netherlands, 166 mothers and mothers-to-be and their partners participated in the **post-measurement** of this work package. They therefore completed the questionnaire after they came into contact with the multimedia campaign. Again, the majority of respondents were mothers and mothers-to-be (92.8%). About one in five of the women had an increased risk of developing depressive symptoms, both during pregnancy and in the first year after childbirth.

With this, it seems that the probability of developing depressive symptoms among women who saw the campaign is thus lower than among women who did not see the campaign, and one of the objectives of the multimedia campaign, namely reducing depressive symptoms, was achieved. No difference was shown among partners. Looking at the measurement before the campaign compared to the measurement after the campaign, we see that stigmatisation overall, as well as personal stigma, decreased.

For more information and descriptive analyses see Annex 1.2 - The Netherlands (Table 2).

United Kingdom

The multimedia campaign was created and organised by KMPT in collaboration with Four Health. The agency Four Health developed the campaign based on market research regarding the experiences of parents and parents-to-be within the PMI theme. The campaign was launched in May 2021 and was disseminated through various channels: mainly social media (online campaign Four Health), 250 pharmacies (distribute PATH pharmacy bags when selling selected baby products), 8 maternity hospitals (display PATH posters), newsletters, TV and radio interviews. Many of these products can be found on UK's online hub - including the social media campaign featuring Sandra and Mark. In total, more than 40 million people in the UK were reached.



In the UK, 902 mothers or mothers-to-be and their partners participated in the **pre-measurement** of this work package. Most of these were mothers in the antenatal period or with a child up to 1 year old. Among the pregnant women, the risk of developing depressive feelings was about 1 in 2. Among women in the first year after giving birth, that probability was about 1 in 4. Personal stigma was found to be lower than social stigma. Thus, they rated themselves as less stigmatising (i.e. more tolerant) compared to their perceptions of the general population.

In the UK, 247 mothers or mothers-to-be and their partners participated in the **post-measurement** of this work package. They therefore completed the questionnaire after seeing the multimedia campaign. These respondents were also mainly mothers. Within this output, no effect of the multimedia campaign on reducing depressive symptoms could be demonstrated. Also in terms of stigma, no effect was demonstrated using the questionnaires.

However, the multimedia campaign was received very positively and the response was laudatory. The campaign was also nominated as a finalist for the PM Society Digital Award 2022 in the category 'Healthcare Charities, Patient Association and the NHS'.

For more information and descriptive analyses see Annex 1.3 - United Kingdom (Table 3).

Summary output 1

More than 50 million people were reached with this initial output. Based on the questionnaires, the number of people reached and the impact of the campaigns within the different countries, it can be said that the overarching objectives were achieved within this output:

- Develop a multimedia campaign to raise awareness and destigmatise PMI
- Creating a collective understanding of PMI



PATH Output 2: a set of online resources for healthcare professionals and employers.

Flanders, Belgium

In Flanders, (online) tools were developed both for care providers within the perinatal setting and for employers involved in the (daily) organisation around the pregnant woman and the employee who has just given birth.

In cooperation with Odisee Hogeschool, the AP University College Antwerp developed an <u>e-learning on perinatal mental health</u>. This e-learning consists of 13 topic-related modules targeting (student) care providers in mother-child care. Besides the theoretical aspect of perinatal mental wellbeing, practical tips are provided to discuss this topic with parents. It also focuses on how to refer parents if necessary. Caregivers can follow this e-learning for free and at their own pace. After completing the entire e-learning, they receive a certificate for 10 training hours.

Already 463 care providers have registered to take part in this e-learning. 130 of them completed the e-learning and already received a certificate. The e-learning was well received by students and professionals in the field.

"I found the e-learning very informative. The way the info was delivered was very clear. The combination of powerpoint and video made it extra easy to follow."

"I found it a very interesting e-learning whose content I actually think should be known to every healthcare provider as a minimum, for safe healthcare delivery."

"It was a very informative e-learning, especially the practical tips have been the most interesting for me as a maternity nurse, this way I can hopefully do a bit more for my families in the work field where I do encounter this quite often. Thank you so much!"

In addition to e-learning, teaching took place in the Master of Nursing and Midwifery programme at UA in the teaching component 'The midwife in today's healthcare society' (academic year 2020/2021 and 2021/2022). Teaching focused on prevalence, universal



prevention and indicated prevention (risk screening), including the intervention What's Up Mama (see output 3: Flanders, Belgium). Student evaluation was positive.

In addition, Odisee Hogeschool developed several tools for employers together with a master's student from UGent. The tools consisted of a checklist for employers, a contact plan 'Pregnancy', a contact plan 'Welcome Back'. In addition, a live event "Mental well-being and well-being of (future) parents in the workplace" was organised for employers, executives and prevention services in cooperation with the Flemish employers' organisation VOKA. The checklist inquires about the mental health of (future) parents in the workplace. The checklist includes figures and facts, signals of reduced emotional and mental well-being, tips for discussing mental well-being and useful links to refer to. The contact plan 'Pregnancy' is a tool to discuss various issues concerning pregnancy with the employee. Various aspects are covered, including risk analysis, prenatal examinations, starting maternity leave, transfer of tasks, communication during maternity leave and returning to work. The 'Welcome back' contact plan is a tool to discuss returning to work. Various aspects are covered such as key changes in the organisation, risk analysis, breastfeeding breaks, administration and work-family combination. All with the aim of raising awareness among employers about employees' perinatal mental health. In addition, these tools also aim to increase knowledge and offer tools to provide effective support to their employees. The content of these tools was developed in collaboration with UK partners and based on interviews with parents and parents-to-be, employers and prevention services in Flanders.

The tools were evaluated among employers and managers for completeness, relevance, usability and added value via a master's thesis (UGent).







In Flanders, 425 respondents participated in the **pre-measurement** of this work package. The vast majority of these were caregivers (94.4%). These care providers were mainly (student) midwives and nurses, both in first- and second-line care. This questionnaire probed knowledge of depression. Knowledge was scored using statements. It looked at whether respondents judged the statement to be right or wrong or whether they did not know the answer. They also looked at stigma, both personal and social stigma. The average score of personal stigma is lower than that of social stigma. Thus, Flemish caregivers rate their own stigmatising behaviour lower compared to the general population.

In the **post-measurement**, 109 respondents participated. These were mainly caregivers, namely (student) midwives and nurses.

No effect was shown in terms of knowledge of depression. Stigma was also examined, both personal and social stigma. The mean score of personal stigma was lower than that of social stigma, but were similar to the premeasurement scores.

For more information and descriptive analyses see Annex 2.1 - Flanders, Belgium (Table 4).

The Netherlands

Maasstad Hospital worked with MattieClick and Okibo within this output. On the one hand, they developed an e-learning 'Integral Child Care System' for birth care workers on perinatal mental health. This consists of a course with 8 hours of e-learning combined with a 1-day practical training. This course was attended by 138 care providers.



On the other hand, an <u>e-learning</u> was also <u>developed for employers</u> consisting of 3 modules and linked to a practical training course. The online course covers both dangerous work situations during pregnancy or return to work and the effects of hormone treatment in view of a desire for parenthood. In another course, employers are trained to recognise signs that an employee is at risk of becoming overworked. Immediate intervention when these signals are noticed can prevent long-term absenteeism. In addition to the course, a practical training has been developed. It is supported by visual material and audio messages. Tools have also been created for employees to indicate what is needed to function properly. One example is an e-learning on the stigma surrounding mental health problems in birth care. A total of 25 employers were trained.





In addition to the e-learning, it also used podcasts, blogs and a documentary to raise awareness among healthcare professionals and employers. Many of these products can be found on the <u>online hub of the Netherlands</u>. Finally, care providers and employers could go here for all kinds of info on perinatal mental health and referral to the online tools. This website reached 758 healthcare providers and 417 employers in the Netherlands.



In the Netherlands, 351 respondents participated in the **pre-measurement** of this work package. The vast majority of these were caregivers (98.0%). These caregivers were mainly midwives and nurses, both in the first and second line. The average score of personal stigma is lower than that of social stigma. Thus, the Dutch social worker rates her/his own stigmatising behaviour lower compared to the general population.

No respondents participated in the **post-measurement**. It is therefore not possible to demonstrate any effect of this output from the response rate.

For more information and descriptive analyses see Annex 2.2 – The Netherlands (Table 5).

United Kingdom

In the UK, the tools were developed by a collaboration of several UK partners and the content was created together with healthcare professionals, employers and people with PMI experience. This resulted in lots of tools and resources for healthcare professionals, support workers and employers, all of which were made available on the online hub.

Resources for healthcare professionals include information on PMI, including the different types of conditions, who is at risk and available treatments and a section with information on perinatal mental health stigma and how healthcare providers can support parents, improve practice and reduce stigma, and improve communication between patients and professionals. Several focus groups and peer reviews helped partners to prepare articles that aimed to improve understanding of perinatal mental illness, reduce the stigma, improve communication and provide resources for support and signposting. The section also included simulated scenarios in the form of training videos and lived experience narratives.

A key piece of work for PATH was to understand how to support parental wellbeing in the workplace. The iHV undertook a literature review then, together with PATH partner Southampton City Council, undertook further research and interviews with parents and employers, resulting in ten parental workplace wellbeing recommendations for employers. In addition, several tools were also made available for employers on the hub such as information or recommendations on maternity rights, employer responsibilities regarding health and safety and specific guidelines for COVID-19. Furthermore, practical tools were offered, for example: a maternity leave calendar, the Back to Work Checklist, and so on. Additionally, a free training for employers on perinatal mental health could be registered for through the hub. SCC's Employment Support Team ensured the development of one-to-one support. Central to this is a person-centred approach, including workshops aimed at getting back to work. The emphasis is on building self-confidence and motivation of new parents going back to work. With the 'Bear Picnic', the team reached many people in the area and was able to provide them with valuable

information. These were informal picnics for new families preparing to go back to work. Bears were distributed to the children.

INFORMATION FOR EMPLOYERS

Information on maternity rights, your responsibilities as a employer, health and safety as well as Covid19 specific guidance.

- · Welcome to the PATH Employers Hub
- Help with difficult conversations
- COVID-19 Guidance for Employers
- Guidance and Legislation
- Good Practice
- Keep In Touch Days
- Supporting employees experiencing Perinatal Mental Health Issues
- · Breastfeeding in the Workplace
- Flexible working making it work for you and your employees

RESOURCES FOR EMPLOYERS

Useful resources, toolkits and guides to enable you to support your employee on her journey to becoming a working parent.

- Full list of resources
- Employer Infographic
- Maternity / Paternity Leave Calendar
- Employee Wellbeing Plan
- Parental Return to Work Checklist
- Welcome Back Pack
- Parent Wellbeing Passport
- Maternity Leave Contact Plan

In the UK, 232 respondents participated in the **pre-measurement** of this work package. The vast majority of these were caregivers (84.9%). These healthcare professionals were mainly midwives and district nurses. The mean score of personal stigma is lower than that of social stigma. Thus, UK healthcare professionals rate their own stigmatising thoughts lower compared to the general population.

Only 9 respondents participated in the **post-measurement**. It is therefore not possible to demonstrate any effect of this output from this response.

For more information and descriptive analyses see Annex 2.3 - United Kingdom (Table 6).

Summary output 2

Within output 2, many tools and information facilities were developed within the different countries. Although it was difficult to evaluate each tool individually, given the low number of respondents, important overarching objectives were achieved within this output and many instructive tools were developed for employers and care providers and collected on the hub:

- PATH improved healthcare providers' skills and knowledge so they can effectively treat PMI
- Knowledge about PMI and the needs of parents and expectant parents was provided for employers so that they can discuss these in a supported way with their employees
- Checklists, tools and training for employers were provided to use with pregnant employees
- Freely available tools and interventions were developed
- A pool of knowledge was created
- There is access to electronic versions of all developed material in any language for dissemination through proprietary networks



PATH Output 3: a new multimedia, international support platform to help new families create parental awareness and recognise, prevent and remedy PMI.

Flanders, Belgium

In Flanders, the What's Up Mama tool® was developed by AP University College Antwerp. This was done in close cooperation with an expert panel. This panel consisted of a diverse group of experts from the birth sector, including experts by experience, care providers, ICT staff and academics. What's Up Mama is a website developed for pregnant and postpartum women. Women can visit this website for free and as often as needed. It explains what emotional changes can take place during pregnancy and the first year postpartum, and what factors in life make women more likely to become unbalanced when having a child. In addition, women can indicate whether they experience these changes and to what extent. Tips & tricks (practical, relaxation...) are offered to stay emotionally balanced or to help get back in balance, such as a relaxation exercise or tips to make daily life more practical. Through easy questions, women receive tailor-made advice.

In case a woman indicates feeling emotionally balanced based on the questions, women will be reassured and advised to revisit the website at a later time if necessary. In case a woman indicates feeling emotionally unbalanced, the woman answers questions to determine the severity with appropriate advice. If the woman needs professional help, a list of nearby healthcare professionals, support workers is offered. The woman is given a personalised overview of her situation and how best to deal with it, appropriate to her situation.

A social map was constructed that inventoried services related to perinatal psychological and emotional help and support in Antwerp, East Flanders and West Flanders. This map provides insight into the supply of assistance and support services. The map contains 233 services, offering a variety of individual, group, regular and alternative assistance.



MHAL, 2 OS WAWW

Sanne Peeters was one of the first midwives to offer What's Up Mama to clients. She says: "Many pregnant or recently delivered women could use some mental guidance. If a woman reports worry or stress, I point her to What's Up Mama. What I find strong about it is that the advice is nalised. It is not a standard questionnaire,

personalised. It is not a standard questionnaire, but the questions the user is asked come from previous answers she has given. And the advice is also tailored to the answers. Because the programme is anonymous, it is low-threshold to use. It shows the user that it is not strange that she sometimes feels insecure."

Eline Kennis is one of the mothers who started working with What's Up Mama during her pregnancy. She has since given birth to her daughter. She says: "The programme is very easy to use. Whenever I had a moment of uncertainty, I would click on the website. I didn't directly do anything with the advice. I especially liked reading the experiences of other pregnant women. They gave me the feeling that I am not the only one who has anxious moments in her pregnancy. And also afterwards, because even now that Flore has been born, I still pick up What's Up Mama sometimes."



The podcast "Do all new mums live on a pink cloud?" was recorded by one of the Flemish PATH staff and broadcast by 'De Universiteit van Vlaanderen' to talk about how pregnancy and becoming a mother is not a joy for everyone. In this podcast, reference is made to What's Up Mama. This podcast was also <u>shared</u> in the Netherlands. Finally, it was shared on influencer Julie's <u>Instagram page</u> (a hot spot for mums with 15,200 followers). The website was visited by 5537 people.

The same analyses were used for this **pre-measurement**. For the description of these analyses, see 'PATH Output 1 - Flanders, Belgium' for the description of these analyses.

In the **post-measurement** of this work package, 78 parents and expectant parents participated. Of these, 38.5% completed the questionnaire during pregnancy and 61.5% during the first year after delivery. Compared to parents and parents-to-be who had not used What's Up Mama, we see that in the group that did use the tool had fewer anxiety and depressive symptoms, less stigmatisation compared to PMI and more knowledge about the topic.

For more information and descriptive analyses see Annex 3.1 - Flanders, Belgium (Table 7).

The Netherlands

The Netherlands was committed to better preparation, lifestyle advice and knowing where parents and parents-to-be can go if care is needed. They also had the additional objective of making parents less dependent on care providers and thus better able to support themselves and call on their own social network. Within these outputs, several online tools were developed for parents and parents-to-be.

The <u>Self-Aware Pregnant e-learning</u> consisted of 20 modules – 12 during pregnancy and eight postpartum. The course contributes to participants' good mental health in several ways. The information ranges from practical tips, for example on making contact with the baby in the womb, to information on the changes the body undergoes during pregnancy and childbirth. Tools are also given for dealing with pain, stress or negative thoughts. Exercises, positive childbirth stories and practical to-do lists are also part of the course. A separate part concerns information on what to choose, including when it comes to the healthcare provider. Over three years, about 400 participants took this e-learning.



Several more apps were also developed: Preconception app, ZwApp+, NaZorg, LossApp and the NeoZorg app. The ZwApp+ has been downloaded more than 2,000 times as of February 2021. The NeoZorg app was launched in Maasstad and Ikazia Hospital in March 2021. In Ikazia, over 900 parents used the NeoZorg app and in Maasstad hospital, 850 parents used it. As of launch in June 2022, more than 2,000 user accounts have been created in the Loss-App. The apps enable pregnant women to prepare physically, mentally and socially for the various stages of the journey to come. Incidentally, even when things go differently: when getting pregnant does not succeed immediately, for example, or when medical complaints arise during pregnancy or complications occur at birth, such as premature birth. Finally, the apps offer parents support in those first exciting months after the birth.

The same analyses were used for this pre-measurement. For the description of these analyses, see 'PATH Output 1 – The Netherlands' for the description of these analyses.

Only 14 respondents participated in the post-measurement. It is therefore not possible to demonstrate any effect of this output from this response.

For more information and descriptive analyses see Annex 3.2 - The Netherlands (Table 8).

United Kingdom

In the UK, the online hub was used within this output. Here, various information resources and tools were provided for parents and parents-to-be with the aim of improving recognition and awareness of mild to moderate PMI and also with the aim of destigmatising PMI. The online resources were developed in collaboration with various UK partners and individuals with experience of PMI. The hub provided information about becoming pregnant (the preconception phase), tools to support mental health (e.g. mindfulness), as well as specific tools for mothers and mothers-to-be and their partners. This included knowledge about PMI, as well as relaxation exercises and information about the impact of social media. Information and tips & tricks on connecting with your baby, both during pregnancy and postpartum, were also offered. Finally, parents and parents-to-be could also find (practical) information about parenthood and going to work.

How can mindfulness help my mental health?

- → Noticing the good moments our minds are often on the look out for risk.

 This means we are more likely to replay mistakes in our minds. We then forget the good moments. Taking time to notice even the small, good moments can help boost our mood
- → Grounding during difficult moments this is about bring our focus to what is around us. What can I see? What can I hear?
- → Breaking down difficult challenges into smaller steps. Taking it each moment at a time
- → Improving our self-awareness

Since this work package involves the same target group and questionnaires as output 1: multimedia campaign, the same analyses were used for this pre-measurement. For the description of these analyses, see 'PATH Output 1 - <u>United Kingdom'</u> for the description of these analyses.

No respondents participated in the **post-measurement**. It is therefore not possible to demonstrate any effect of this output.

For more information and descriptive analyses see Annex 3.3 - United Kingdom (Table 9).

Summary output 3

Within output 3, many tools and information facilities were developed, which were led on the online hub. This sustainable platform with links to all the various developments was visited more than 150,000 times as far as can be measured. The following objectives were also achieved within this output:

- PATH supports parents before birth to prepare for their new role
- Thanks to PATH's various tools, including anonymous online services, women can access support in a way that suits them best
- A new multimedia international support hub, including gaming and avatars, was developed to help families develop awareness & recognise, prevent and overcome PMI
- A support system (with both online and offline tools) where women and families can find and access help in various ways was created
- By offering an anonymous, online and self-selected route to professional or community support, PATH helps women and families understand and identify their situation and seek help at the right level and at the right time
- Freely available tools and interventions were created
- A pool of knowledge was created
- Access to electronic versions of all developed material in any language for distribution
 via own networks
- An approachable supply of care regarding PMI



PATH Output 4: a set of support sessions for new families.

Flanders, Belgium

In Flanders, midwifery students from AP University College Antwerp were used within this output to develop and deliver training. Seven final-year students organised a workshop for parents and parents-to-be about perinatal mental health. They did this as part of their thesis and under the guidance of the researchers within PATH. Each student was allowed to develop a workshop around a specific topic within this output, these were:

- 'Preparing for parenthood' workshop
- 'Mental health during pregnancy and maternity' workshop
- Workshop 'where do those tears suddenly come from emotional aspects'
- 'Resilience' workshop



Thorough literature research and coordinations with experts preceded the development of these workshops. These trainings for parents and parents-to-be consisted of different components: sharing theory, awareness and de-stigmatisation about 'the pink cloud' as well as interactive moments where experiences were shared . A total of 35 parents and parents-to-be participated in the different workshops.

In Flanders, 26 parents and parents-to-be participated in the **pre-measurement** of this work package. These were mainly pregnant women and their partners. This questionnaire probed the respondents' risk of developing depression and their resilience. There were no participants in this small set of respondents with an increased risk of developing depressive symptoms. The majority scored normal or high on the resilience questionnaire.

No respondents participated in the **post-measurement**. It is therefore not possible to demonstrate any effect of this output. However, workshop attendees were enthusiastic during the sessions and parents gave the students positive feedback.

"I found it a very informative workshop. I had never thought about my resilience before, but this is very important, especially with the baby."



For more information and descriptive analyses see Annex 4.1 - Flanders, Belgium (Table 10).

The Netherlands

A PATH HOUSE was opened in Rotterdam, where workshops around prepared parenthood were offered to families and where pregnant women could also come for information and advice. The various training courses that were developed within this output of PATH in the Netherlands are offered in the PATH HOUSE. In the Netherlands, two initiatives were started for parents and parents-to-be within this output. On the one hand, Maasstad Hospital developed the "Path of Prepared Parenthood" exhibition in which the medical birth care path and Centre of Youth and Family were brought together. This exhibition was developed as there was a clear need for accessible, comprehensible, accessible and free information on parenthood. The exhibition at the PATH HUIS in Rotterdam also provided insight into the "Path of Prepared Parenthood". Various lines of information come together in the exhibition. Life-size photos, an audio tour and informative videos outline the path to parenthood. The information leads to an understanding of the care path facing parents and parents-to-be. They find their own way and stay in control. The information makes them experience less anxiety and stress. Since its opening, about 300 pregnant women partners and families have visited the exhibition. However, the threshold to come to the PATH HOUSE proved quite high. As a result, the whooping cough vaccination that pregnant women receive at 22 weeks was organised at the PATH HOUSE, so that it could be combined with a visit to the PATH HOUSE. The PATH HOUSE was evaluated positively:



"In my own country, I knew the way but here in the Netherlands I have to reinvent everything. This exhibition is very enlightening about how things are organised in the Netherlands."

On the other hand, <u>MattieClick</u> training was also developed for parents and parents-to-be. MattieClick is a practical method for mapping their own social network. With this tool, one gains more insight into their own situation in five steps. Users can also easily identify who they can turn to for help. A total of 166 (future) parents attended this workshop in order to use MattieClick efficiently within parenthood.





In the Netherlands, 21 parents and parents-to-be participated in the **pre-measurement** of this work package. These were mainly women in the first year after childbirth. This questionnaire probed respondents' likelihood of developing depression and resilience. In this small set of respondents, 3 out of 4 of participants had an increased risk of developing depressive symptoms. The majority scored low on the resilience questionnaire.

No respondents participated in the **post-measurement**. It is therefore not possible to demonstrate any effect of this output.

For more information and descriptive analyses see Annex 4.2 - The Netherlands (Table 11).

United Kingdom

In the UK, two courses were developed with concrete tools to pay attention to the perinatal mental health of parents and parents-to-be. The first dealt with the transition to motherhood from a psychological and social point of view. Specifically, the course dealt with the process of 'becoming a mother'. An expectant mother can be torn back and forth between who she was before motherhood and who she is expected to be as a mother. This can mean a loss of self-esteem, which the mother may mourn. The same goes for the apparent loss of the things she did before having the baby. The first course included steps to help parents acknowledge the changes. It also focused on coping with those changes. The course took place both online and in local centres. A total of 57 parents and parents-to-be participated in this course and it was very positively received, especially the recognition and normalisation was very nice for the participants. All participants reported that the course had made them very happy:



"It is such a relief to know that how I feel is normal and natural and that I am not alone."

"Very reassuring that someone normalises the difficult things about becoming a mother."

The second course, which lasted five weeks, focused on coping with difficult emotions and thoughts. Parents were given different coping techniques to support their mental well-being. The final session focused on how parents can continue to use the skills learned. Parents commented that they enjoyed learning different coping techniques. This course was delivered both online and face-to-face at local centres. 37 parents and parents-to-be attended this intensive training and people were very enthusiastic about the course.



"It was really interesting to learn about how our brains work and become aware of feelings and physical signals and learn different techniques." In addition, 1-on-1 sessions on 'Emotional support' at 67 (expectant parents) were also conducted. Finally, some practical tools were also developed, including the tool 'Stoplight - Check your mental wellbeing':



Stoplicht – Check je mentale welzijn

De beschrijving in de 3 zones is relatief en hangt samen met Jouw ervaringen'. Het Stoplicht is geen diagnose instrument. Het kan je helpen nadenken over jouw mentale welzijn en bespreekbaar maken met anderen. Je behoeft niet te wachten tot je in de rode zone bent voor je aandacht besteed aan je mentale gezondheid.

Rode Zone - mentale balans is laag

Wanneer ik dat al niet doe, ik moet nu eerst werken aan mijn eigen mentale balans. Welke vaardigheden kan ik gebruiken? Waar kan ik hulp en ondersteuning vinden?

Wanneer je al geprobeerd hebt dit te doen en toch in de rode zone blijft steken, is er iets anders dat je kan proberen? Misschien ben je al goed bezig maar kost het wat meer tijd om effect te krijgen. Wanneer je honger hebt, denk je misschien dat 1 sinaasappel eten genoeg is. Je moet nog wat meer eten. Hetzelfde geldt voor zelfhulp technieken en therapie sessies – die werken ook niet in een keer.

Oranje zone – begin een dip te voelen in mijn mentale balans

Wat heb ik nodig om in mentale balans te blijven? Zijn er fysieke of mentale gezondheidsproblemen die aandacht nodig hebben? Heb ik mijn gezondheid op de laatste plaats gezet? Wat kan ik vandaag doen om mijn mentale balans te bevorderen?

Groene zone - mentaal in balans voelen

lk moet de dingen blijven doen die me helpen me gezond en mentaal in balans te voelen.

For this work package, no questionnaires were distributed in the UK. It is therefore not possible to demonstrate any impact of this output.

Summary output 4

Within output 4, several trainings were developed for parents and parents-to-be. Each training was positively received, resulting in positive verbal feedback from participants. Overarching objectives were also achieved here:

- PATH supports parents before birth to prepare for their new role
- Tools for help and support were offered
- A support system (with both online and offline tools) where women and families can find and access help in different ways was created
- Facilities for fathers and fathers-to-be were developed
- An approachable supply of care regarding PMI



PATH Output 5: face-to-face training: course for healthcare professionals.

Flanders, Belgium

Within Flanders, several courses were offered to care providers on perinatal mental health. On the one hand, a training course was started by Odisee Hogeschool in cooperation with an expert group with the aim of increasing knowledge and awareness of professionals and improving screening and communication skills. The course lasted one day and was mainly aimed at professionals who provide care and support to women and families during the perinatal period, such as (student) midwives, general practitioners, gynecologists, nurses, healthcare professionals, psychologists, psychiatrists, etc. A total of 92 caregivers participated in this training, spread over four training days.





On the other hand, vzw GiO developed the PSP GGZ training course. The methodology of the course is 'Train the trainer'. Within this course, the aim is for healthcare professionals to learn about perinatal mental health and create awareness of organisational issues to consistently pay attention to perinatal mental health in their organisation. This four-year course consisted of two modules and looked as follows:

- 2x monthly lesson or group discussion for 4h30, weekly observation task, annual task and final work
- 2 modules of 2 years (40 weeks)
- Classes and group discussions took place during working hours, no registration fee required



There were 13 healthcare providers who effectively participated in this training. They can now further disseminate the knowledge gained in their own organisations as practical specialists.

The first module 'observation of the baby or child' was done in the home setting. This involved participants observing one hour a week for 18 months. On this, they wrote a comprehensive report focusing on the child's development and the impact of the relationship to parents and siblings on this. In addition, there was a two-weekly clinical teaching session focusing on the theoretical aspect during the last semester. In addition, there was also a two-weekly reflective group process each time. The module was evaluated positively:



""I learned to use my own body, thoughts and feelings as a good tool to assess early attachment. Although I really like the theoretical material, the training has given me more confidence in my own personal way of dealing with anxiety-provoking situations."

"Initially, I thought this was not for me because I already have so many years of experience. But gradually I saw the power of self-reflective communication about the details of what I could observe in 'my' family and, moreover, in myself. I learned to listen to colleagues and I better understand how strong team collaboration is essential to provide good mental health care."

The second module 'Dynamics within the organisation' focused on bringing participating organisations closer to the training as well as developing in participants the skills to achieve sustainable integration of perinatal mental health awareness in their organisation. This involved planning consultation moments with managers and the participant(s), observing participants within other organisations, theoretical and case study discussions within group discussions and helping participants to set up specific projects in their organisations. Within this training, the objectives were achieved and the trainees who were able to attend the full and intensive training experienced this approach as positive.



Finally, two more in-service trainings were organised by AP Hogeschool and Odisee Hogeschool in collaboration with the VBOV. The first in-service training 'Tips & Tricks for dealing with the fragile cloud' took place on 18 January 2022. Here, the PATH project was presented and research results on psychological problems of Flemish mothers were displayed and discussed. In addition, a lecture was given on psychological changes during pregnancy and postpartum and there was also a presentation on screening and the care path psychological vulnerability in Flanders. Finally, stories of experience were shared and there was room for discussion. The second in-service training 'Attention to yourself is not an afterthought' was organised on 23 March and focused more on the well-being of the caregiver himself. It addressed the following topics: self-care, burnout and psychological complaints, tips for working mothers, work-related traumatic experiences as a midwife. This in-service training ended with a session of mindfulness to give healthcare professionals, support workers a taste of the practice. A total of 79 midwives participated in these in-service trainings. They were very positive about the in-service trainings.

In Flanders, 180 caregivers participated in the **pre-measurement** of this work package. Mainly midwives and nurses participated. The personal stigma was lower than the social stigma, meaning that Belgian healthcare professionals rated themselves less stigmatised compared to the rest of the population.

In the **post-measurement**, 85 respondents participated. Again, these were mostly midwives and nurses. Half of these respondents participated in the training around mental health during the perinatal period for caregivers. In terms of stigma, self-efficacy and training needs, no effect was shown. In the area of knowledge, certain statements were scored equal and certain statements better than during the pre-measurement. There were no statements that scored less well. These results show a positive effect of the training on knowledge about depression.



For more information and descriptive analyses see Annex 5.1 - Flanders, Belgium (Table 12).

The Netherlands

In the Netherlands, several training courses were prepared for healthcare providers. First, the course <u>'Family centred care in birth care and neonatology'</u> was developed. This course focuses primarily on obstetrics, neonatology and pediatrics nurses to coach parents and parents-to-be in their directing role, caring for their baby and making decisions together. The course provides knowledge and skills on culture, intercultural communication, social midwifery, mental and social health. This is done through a course supplemented by 12 e-learning modules and practical training in communication and interculturalism. The training is accredited for nurses, maternity nurses, midwives, gynecologists and pediatricians. A total of 412 (student) healthcare providers attended this training.



Second, there was a course 'Prepared Parenthood'. Within this course, two different trainings were developed. On the one hand, the training course 'Prepared Parenthood – Neonatology with Family Integrated Care Intervention' was given to various caregivers. This 'family-centred integrated care intervention' delves into the conditions of care for babies, whether healthy, sick or premature, in neonatology. Besides knowledge through the course and six e-learning modules, the healthcare professional is taught to use the workbook 'Travel Guide – Parents in neonatology' when working with new parents. The workbook contains a teaching programme and information that can be used by nurses in coaching and training parents towards independently caring for their baby. This training was attended by 142 caregivers. People were very enthusiastic about the training. On the other hand, the training 'Path of Prepared Parenthood train-the-trainer'



Third, the 'Integral Child Care System' course was also developed (see output 2 - Netherlands). This course was developed for pediatric nurses who nurse children with special needs. From 'Integral Child Care', pediatric nurses are taught to work with Medical Child Care Cooperation. A method consisting of four steps. The first two take place in the hospital. Next, care is transferred with a structural transfer to organisations in the home environment. There, step three takes place: indication and provision of care. Step four concerns the conclusion of the care plan when additional care is no longer needed at home. Parents with an extra challenge in caring for their child thus remain better mentally and socially balanced. This course consisted of eight modules and one day of practical training and was attended by 180 (student) caregivers.

Fourth, 42 professionals also attended the course on the website Self-Aware Pregnant (see output 2 – Netherlands) to bring it to the attention of clients. In a 2-hour online training, caregivers were introduced to the course and focused on how to bring it to the attention of parents and parents-to-be.

Finally, the 'MattieClick' course was also offered in various forms for healthcare professionals. In these training sessions, professionals learn how to practically apply the MattieClick method and how they can thus motivate and support parents and parents-to-be. These workshops are suitable for professionals in the care and social domain. A total of 109 professionals followed a MattieClick training.

In the Netherlands, 200 caregivers participated in the **pre-measurement** of this work package. These were mainly midwives and nurses. On the one hand, personal and social stigma were examined. Personal stigma was lower than social stigma, meaning that Dutch caregivers rated themselves less stigmatised compared to the rest of the population. On the other hand, the self-efficacy and training needs of birth care providers were examined.

In the **post-measurement**, 114 respondents participated. Again, these were mostly midwives and nurses. Most of these respondents participated in the training 'family-centred care in birth care and neonatology'. In terms of stigma, no effect was shown. In terms of knowledge, the statements were scored either the same or better than during the premeasurement. There were no statements that were scored worse. With this, we show a positive effect of the training in terms of knowledge about depression. On self-efficacy and training need, no effect was shown.







For more information and descriptive analyses see Annex 5.2 - The Netherlands (Table 13).

United Kingdom

The Institute of Health Visiting (iHV) developed a Fathers' and Partners' awareness programme for healthcare practitioners in collaboration with Dad Matters UK, a Home Start project. This training aims to encourage healthcare practitioners to develop father-inclusive practices and services for families in the perinatal period, based on contemporary research and experiences of fathers,



This course was attended by a total of 224 student health visitors and school nurses and was found to be very positive:

"It gave me confidence to ask dads about how they feel," he says.

"The knowledge I have gained should be shared with colleagues and support for fathers should be included in guidelines and documentation."

"Insight to ask how the father feels after the transition to fatherhood. Especially if there was a traumatic birth."

In addition, Devon Mind and KMPT jointly developed a training on 'Understanding perinatal mental health' for healthcare providers. This training consisted of three different modules. These could be taken separately or the full training of three modules. The first module focused on awareness of perinatal mental health. Here, the aim was to create more awareness about PMI, increase understanding of its consequences, increase knowledge about the support available for parents and families and provide tools for referral. Module two focused more on understanding and reducing stigma around perinatal mental health. Here, the aim was to increase knowledge about different types of stigma and recognise barriers. Finally, the third module focused on improving communication as well as self-care for caregivers. This last module aimed to make caregivers more aware of how to communicate effectively with parents and parents-to-be, be more aware of barriers to good communication and create awareness about how important it is to focus on your own well-being as a caregiver (self-care). A total of 241 (student) caregivers participated in this face-to-face training. The caregivers took home the following valuable lessons:



"It has provided new perspectives on who and why a person is affected by perinatal mental health problems. This will benefit me in the future, as I have more knowledge about early warning signs and learned new approaches to the questions I ask."

"To be able to support parents with PMI and refer them to the right support."

"Trusting my instincts to seek further help."

No respondents participated in the **pre- and post-measurement**. It is therefore not possible to demonstrate any effect of these outputs .

Summary output 5

In output 5, numerous valuable trainings were developed. Based on the many positive responses from participants and a limited positive effect from the questionnaires, it can be said that overarching objectives were also achieved here:

- PATH improved healthcare providers' skills so they can effectively support and treat
 PMI
- A collective understanding of PMI was created

PATH Output 6: peer support training and a network of intergenerational support groups.

Flanders, Belgium

In Flanders, midwifery students were trained and used as peer supporters. Within Odisee Hogeschool, first-year midwifery students were assigned to interview a pregnant woman. The main aim was to make pregnant women more aware of their perinatal mental health. In addition, as a peer supporter, the aim was to gain insight into the experience and perception of a normal pregnancy and the importance of paying attention to psychosocial well-being during pregnancy. A total of 40 midwifery students worked on this task as peer supporters. In addition, a theatre performance was also organised within Odisee to create attention and awareness about perinatal mental health among the general public. 60 people attended this, who will hopefully in turn act as peer supporters and thus support the mental wellbeing of parents and parents-to-be in their environment.







AP Hogeschool Antwerp also deployed their midwifery students as peer supporters. On the one hand, students were assigned to follow up a pregnant woman (and her family) during pregnancy and the first weeks postpartum during the 'Caseload Midwifery' task. Here, the student acted as an additional confidant within the transition period to parenthood. In total, some 146 student midwives worked this task. On the other hand,



midwifery students were also given a workshop on perinatal mental health and how they can play a role in this. Here, the aim was mainly to increase knowledge around depression and emotional well-being and to reduce stigma around this topic. This lesson lasted two hours and students found it very valuable. In total, 82 midwifery students participated in this workshop, which resulted in positive experiences and learning moments.



"I found it a beautiful and confrontational training. Good that attention is being paid to this, because many people don't talk about it anyway. We can learn a lot from this. Especially all future midwives, then we will know what we can offer. Nice research!"

In Belgium, 110 peer supporters participated in the **pre-measurement** of this work package. These were mainly women. On the one hand, personal and social stigma were examined. The scores of personal and social stigma were quite close to each other, meaning that the Belgian peer supporter did not rate themselves as less or more stigmatised compared to the rest of the population. The peer supporters' knowledge regarding depression was checked by means of statements, looking at whether they estimated the statement correctly or incorrectly or did not know the answer. On the other hand, peer supporters' self-efficacy was examined.



In the **post-measurement**, 35 respondents participated. These were mostly midwifery students. In the area of stigma, no effect was shown. In the area of knowledge, certain statements were scored the same and other statements better than during the premeasurement. There were no statements that scored less well. These results show a positive effect of the training on knowledge about depression. No effect was shown in the area of self-efficacy.



For more information and descriptive analyses see Annex 6.1 - Flanders, Belgium (Table 14).

The Netherlands

Two training courses for peer supporters were offered in the Netherlands. On the one hand, a 'train-the-trainer course' involving collaboration with Stichting Me Mam and Hellp. Within this course, an e-learning module specifically aimed at peer supporters was used and a practical training course that focused on chairing, guiding and presenting to a group from the perspective of peer contact. This training was attended by 5 participants. In addition, the documentary 'Surely she knew what she was getting into' was also used to reach peer supporters (and the entire population). In it, mothers talk about their experience with mental illness after pregnancy and how those around them dealt with it. The aim of the documentary is to make the taboo on mental health around pregnancy and birth discussable, also one of PATH's objectives. The documentary, supplemented by interviews with professionals and an expert by experience, can be seen at the hub. The full recording can also be viewed with French or English subtitles. On the other hand, within this work package, training was also offered around MattieClick. Here, peer supporters were trained to co-lead the tool MattieClick. A total of 15 peer supporters were trained in this course. This was done both online and face-to-face.



No respondents participated in the pre- and post-measurement . It is therefore not possible to demonstrate any effect of these outputs.

United Kingdom

In UK, a face-to-face training was developed in collaboration with several partners. This aimed to raise awareness of perinatal mental health among peer supporters. This focused on increasing knowledge of PMI, reducing stigma and increasing knowledge of referral. This training was developed together with healthcare providers and people with PMI experience. Content was internally reviewed and tested with the relevant target groups. Devon Mind and KMPT reached a total of 74 peer supporters with this training. These participants were very positive about the training:



"It was very helpful."

"To be able to support parents with PMI and refer them to the right support."

No respondents participated in the **pre- and post-measurement**. It is therefore not possible to demonstrate any effect of these outputs.

Summary output 6

Within this output, more than 450 peer supporters were reached. They were made aware of perinatal mental health and given tools to improve their knowledge and skills in this regard.

Next target was achieved within this output:

 Peer support for new families were trained, thus increasing self-reliance through the wider community and social networks





Report France.

Disclaimer: As the French partner entered the project later, they were unable to participate in the originally proposed method of evaluation, as described above. The text below was provided by the French partner EPSM Lille Métropole – WHO Collaborating Centre for Research and Training in Mental Health (CCOMS).

Introduction

Since 2020, the CCOMS is in charge of the development of the PATH project in France. The coordination team has been in place since May 2021, and the project will end in March 2023. Although it started later than in the other partner countries (UK, Belgium, Netherlands), the PATH project benefits from the deployment in France of the First 1000 Days policy piloted since 2021 by the Ministry of Solidarity and Health. This is a new public policy designed around the needs of children and their parents. Among the key measures: extending paternity leave to 28 days, generalising the early prenatal interview (4th month of pregnancy; generalisation since 2021) and the early postnatal interview (between the 4th and 8th week after delivery; generalisation since 2022) in order to detect perinatal mental illnesses at an early stage, increasing resources in maternity wards, creating new parent-baby units, generalising home visits during pregnancy and after delivery, etc. Other initiatives are more concerned with support for parenthood, such as the creation of parents' groups, or the provision of simple and reliable information via the website² and the mobile application 1000 premiers jours³.

Well-identified by scientific research, the period of the first 1000 days extends from the first months of pregnancy to the child's second birthday. During this period, the physical, emotional and nutritional environment in which the child evolves shapes its overall health and future well-being. The first 1000 days therefore offer a multitude of opportunities to support the child's healthy development and to build with him some of the foundations of his life, for him and for the adult he will become. For parents, it is also a time of profound changes, which can be a source of fatigue and negative emotions. This is why parents and children need to be accompanied and supported throughout the first 1,000 days, so that they can live these first moments of life together in peace.



The PATH project meets this prevention objective because it aims to raise awareness among families, health professionals and employers of mild to moderate perinatal psychological disorders.

- 2 https://www.1000-premiers-jours.fr/fr
- https://1000jours.fabrique.social.gouv.fr/

Recently published data

The following very recently published data support the importance of such a project in France. These data for assessing perinatal mental health in France prior to the release of PATH resources:

— The National Perinatal Survey 2021 was coordinated by the French National Institute of Health and Medical Research (INSERM) among approximately 13,000 women who had just given birth in March 2021 and then 2 months after giving birth aimed to collect information on their health and that of their child.

The 2-month follow-up (> 7000 women included) made it possible for the first time to evaluate women's mental health at national level. 16.7% of women had major depressive symptoms (Edinburgh Depression Postpartum Scale (EPDS) score \geq 13) at 2 months postpartum. In addition, 15.5% of women had a difficult or very difficult pregnancy and 11.7% had a bad or very bad experience of their delivery.

Publication October 2022, report available online: https://www.xn--epop-inserm-ebb. fr/wp-content/uploads/2022/10/ENP2021_Rapport_Octobre2022.pdf

— In addition, the CIANE (Collectif Inter-associatif autour de la naissance), in partnership with Santé Publique France, carried out an online survey between January and June 2021 with the aim of identifying the factors favouring maternal lack of security and proposing measures to improve care from pregnancy to the post-partum period. The results based on more than 8500 responses from pregnancies between 2016 and 2021 show that:

The first weeks at home are a very difficult period for many women, especially primiparous women: loneliness for about a third of women, lack of support for half of women, discouragement for 30 to 40% of women. The extension of paternity leave (from 14 to 28 days since July 2021) is welcome but still insufficient.

Midwives' home visits are an essential element of reassurance.

Despite this, women lack information and support to overcome the difficulties they face. About 50% of them said they had not received any information about their mental health after childbirth and less than 40% of them said they knew who to contact in case of mental distress.

Recommendations:

- Organise an awareness-raising campaign to encourage partners to take leave and to
 do so in the first few weeks after the birth. Raise awareness of this issue in companies
 to remove the obstacles to taking leave.
- Adjust the number of midwife home visits to the needs of women.
- As part of the preparation for birth and parenthood, add two sessions in the post-natal period to answer women's questions and encourage exchanges between peers.

- Only about half of mothers and fathers considered that they had been sufficiently informed about postpartum depression
- Even though in this survey about 30% of mothers and 18% of fathers said they had experienced depressive symptoms or had a diagnosed depressive episode (7% of mothers and 5% of fathers) in the postpartum period.

In this study, the taboo surrounding postpartum depression, the lack of communication and awareness, the guilt of parents and their lack of knowledge appeared to be very potentially aggravating factors.

Publication, August 2021, report available online: https://www.opinion-way.com/fr/sondage-d-opinion/sondages-publies/opinionway-pour-qare-post-partum-et-sante-mentale-septembre-2021/viewdocument/2676.html

Actions

Thus, the CCOMS' mission is to adapt the PATH project to the French context through two main axes: information and training.



Between May and October 2021, several institutional and associative partners were contacted in order to form the project's Steering Committee (nearly 40 experts and representatives of national institutions in perinatal and mental health, including the Ministry of Solidarity and Health and parents' associations such as Maman Blues).

The Steering Committee validated the action plan in November 2021. It has been meeting every 3 months since then and working groups have been set up for each of the planned actions.

The 4 actions carried out in France are the following:

- 1. « Information » axis:
- Families and health care professionals

In partnership with PSYCOM, a national mental health information organisation, two information brochures of about 15 pages each will be published soon (paper and digital versions). The first brochure will inform new and future parents about the transition to parenthood, the symptoms of the baby blues and perinatal depression, and resources for getting better (care, associations, peer support). The second brochure will present the different perinatal mental illnesses, their screening, diagnosis and treatment.

Minimum target population: The first brochure will be printed in 60,000 copies and the second in 20,000 copies. They will be widely distributed by the national network of French PATH partners. These brochures will also be distributed in digital format and referenced in the 1000 first days application.





In addition to the first brochure, and in order to raise awareness of perinatal mental health among fathers or second parents, an illustrated information medium in comic book format is being designed in partnership with PSYCOM and the association The Ink link, which is piloting the action. This document will be distributed on the main social networks.



Families and employers

In order to raise awareness among employers and families of the close relationship between the transition to parenthood, mental health and employment, 10 podcast episodes are planned in partnership with "Studio Caféine", which is piloting the action (key words: rights, gender equality, wellbeing at work, mental health of future and new parents, the 1000 first days policy, family-friendly company policies).



2. « Training » axis:

Health care professionals

Finally, the 4th action is an e-learning training, a MOOC (Massive Online Open Course) entitled "Perinatal mental health in the first 1000 days". The target audience is: general practitioners and specialists, midwives, nurses, psychologists, psychomotricians, social workers, etc. A total of 46 video lessons of 15 minutes each, including parents' testimonies and quizzes, will be divided into 3 modules (module 1 "transition to parenthood and perinatal mental disorders", module 2 "child development and health" and module 3 "care pathways, networking and peer support"). This training will be translated into English. This action is conducted in partnership with Pédagogie Numérique en Santé (PNS).

Based on the average number of perinatal professionals enrolled in previous PNS MOOCs, the target population for this action is estimated to be between 2500 and 3000 health care professionals.

On successful completion of the course, each aplicant will receive a certificate as proof of completion.

An assessment of the candidates' knowledge before and after completing the MOOC will be carried out.

In the future, this course may be accredited for continuous professional development (CPD).

All of these information and training tools will be available in early 2023 and will be posted on the PATH project website.

A conference dedicated to the PATH project will be held on November 18th during the ARIP congress,⁴ which last year brought together around 300 health care professionals on site and over 1000 online.



The MOOC will also be presented at the Paris Santé Femmes congress⁵ to be held in Lille in January 2023.



Collaboration

This international project produced a wide range of useful, innovative and knowledge-broadening tools and training courses. The different countries worked closely together to achieve these end products. Cross-border meetings, Zoom® meetings, steering group meetings and a lot of mail and phone calls preceded this. A four-year project delivers great results, but is also a management and communication challenge, especially in times of a pandemic. Partners get to know each other (interprofessionally) and also encounter some cultural differences over the years. This was reflected both in the way of working and in the communication aspect. As partners, we learned a lot from this project - on the one hand in terms of expertise on perinatal mental well-being, and on the other hand in terms of international cooperation and communication.

Language and cultural differences are one of the first barriers an international project like PATH has to overcome. First, English is not the mother tongue for all partners. As a result, valuable information is sometimes lost in translation. Regularly checking with each other whether the message was properly understood is crucial here. Although the region of the PATH project is not very large geographically, the consortium did encounter some cultural differences in communication style. For instance, we noticed how partners from the UK sometimes reacted rather affirmatively and enthusiastically to certain proposals out of politeness, even though they did not actually agree with them. In turn, this did not quite rhyme with the often direct way of communication by partners from the Netherlands. With successive partners from France, communication was somewhat similar to the English style, but a hierarchical aspect was also noticed, which in turn was rather unusual for the Flemish and Dutch partners. Detecting these blind spots in yourself and finding the right way of dealing with each other required, especially in the first year of the project, a large investment of time. The arrival of the COVID 19 pandemic made this search even more challenging, as written and online communication (via e-mails and Zoom© meetings) added a second barrier.

In addition to the valuable cross-cultural learning and experiences, the following objectives were achieved within the crossborder cooperation:

- There was learning from each other and from various initiatives that took place and improved them
- Existing diverse experience, expertise and knowledge was brought together (including on a shared online platform Basecamp)
- Intensive Cross-Border cooperation and co-creations, taking into account each individual partner organisation
- Various trainings and tools in the different countries were developed and tested
- The closing conference was jointly organised

Evaluation

Within the evaluation, there was mainly a big difference in the way of working with the UK. The evaluating partner (in Flanders) obtained ethical approval to distribute these different questionnaires within the four countries (SHW_19_34). Within the UK, one of the UK partners took responsibility for the evaluation. Within NHS organisational outlines, it was necessary to apply for ethical approval within the UK itself. These additional applications caused delays within the UK evaluation process. Over two years (2020-2022), a total of 14 amendments were requested. Finally, in the UK, questionnaires in work package 1 could be distributed from September 2021 and questionnaires in work package 2 from May 2022. However, the end of data collection was scheduled for July 2022, making the timeframe for questionnaire distribution too short. Unfortunately, this meant that ongoing training sessions within the UK could not be evaluated, as they had obviously started before obtaining ethical approval.

The evaluation within France also faced barriers. The current partner entered the project later. The earlier French partner foresaw major (ethical) challenges to carry out the evaluation as envisaged for the four countries. After the departure of the first French partner, WHO CCOMS came on board, but given the short time frame in which they had to keep up with the rest of the project, it became difficult to still distribute the predefined questionnaires in France. As a result, it was decided – together with the project manager – to leave the evaluation in France to the partner itself. This partner itself wrote down an account of this evaluation and their achievements in this report (see Report France).

Despite the existence of the Helsinki Agreement (30), we learn that ethical processes in different countries are conducted in different ways according to different protocols that do not always favour the practical implementation of the evaluation.

Reflection



The results obtained in this project show that a lot was achieved within the various outputs. Almost all the general objectives that were predefined were achieved. Through the multimedia campaign, a large part of the general population was reached, creating more awareness of perinatal mental health. The questionnaires show some great results from the different trainings. For instance, the online tools certainly proved valuable and effective. Unfortunately, an impact could not be demonstrated everywhere.

Overall, we do see that our questionnaires mainly reached highly educated, cohabiting and employed parents and parents-to-be, especially women. Thus, the results should always be interpreted with caution. In addition, we should be aware that we missed a large part of the population with this evaluation, especially persons in a more vulnerable situation, such as single people and non-native newcomers. It is certainly important to explore PMI in the future among a more vulnerable group of parents and parents-to-be with psychosocial problems.



Apart from the predetermined outputs, some additional technological tools were also developed within the PATH project. On the one hand, VR was used and, on the other, Comic Strips were used. Within PATH, VR films were created, in collaboration with Bournemouth University and IHV, about how perinatal mental health impacts fathers. These offer a glimpse into parents' real-life emotions with their baby at home when mental health problems are present. VR is a computer-generated environment with scenes and objects that appear lifelike. The user wears a VR headset and thus gets the feeling of being immersed in the recording: you find yourself in the world of the filmed family as if you were actually there. Observing the reenacted reality provides immersive experiential learning: the intensity and complexity of mental health problems you experience as a caregiver as parents experience it. This facilitates recognition of signs related to mental imbalance.



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In addition, a tool was developed in collaboration with Bournemouth University for mothers who have experienced traumatic childbirth. Uniquely, the tool is cast in the form of a comic strip (Comic Strips). The user can choose an avatar and model it at will. In the speech bubbles, the user can write down a story. A traumatic childbirth can have a major impact on a woman's life.



The first step in identifying childbirth trauma is to question feelings and thoughts in the postpartum. To this end, stories of experience were translated into a kind of 'storytelling'. This was done as part of final works within the midwifery course at Odisee University of Applied Sciences. Midwifery students translated traumatic childbirth stories they had heard from interviews with women giving birth, using Comic Strips. This comic was then

used as a communication tool in further interviews with parents as a recognition tool. Furthermore, the Comic Strip tool was also used in an information brochure on pelvic girdle pain to share stories of experience and emotions related to this issue (such as pain, social isolation, dejection, anxiety, etc.) and provide (h)acknowledgement.

 Health and social science knowledge was combined with digital technology (VR, eHealth apps and games, advanced gaming technology) to deepen the understanding of new parenthood.



COVID-19

The first news reports about the COVID-19 pandemic came in December 2019. At that time, we as partners had almost completed the first project year. This project year had mainly focused on getting our noses in the same direction, overcoming the cultural and language barriers as discussed earlier, and planning to set up the first trainings.



When lockdowns in the different countries were announced in spring 2020, this affected the project and adjustments were necessary. All project partners collectively put their backs into adjustments but also into an unforeseen but successfully realised information hub on COVID-19 for the different target groups in the project. In addition, the project partners showed flexibility and creativity to deliver the work packages. The entire second work package consisted of trainings that would take place face-to-face, in smaller and larger groups. Where possible, trainings were converted to an online alternative. For example, in Flanders, the workshops for parents (see output 4 - Flanders, Belgium) and the training days for caregivers (see output 5 - Flanders, Belgium), were offered as online workshops and two webinars, respectively. Also in the UK, an adapted, online version of the courses for parents (see output 4 - United Kingdom) that were originally provided face-to-face. The course provided for peer supporters in the Netherlands (see output 6 - The Netherlands) was transformed into an e-learning, in order to still reach the peer supporters. Also, the documentary "Ze wist toch waar ze aan beginnen", which had been used in the Dutch multimedia campaign (see output 1 - Netherlands), was further distributed to all stakeholders, in order to still reach them.



The pandemic unexpectedly also brought some opportunities. For instance, as partners we learned that it is possible to reach out to care providers, new parents and employers through online channels. Aid workers who attended one of the webinars in Flanders gave feedback that it was useful that there was the possibility to watch the recording at a later time, because otherwise their working hours made it difficult for them to attend. Also, on the online hub (see PATH Output 3) an entire page dedicated to COVID-19. Certain partners undertook to keep this page up to date with correct information about COVID-19 related to pregnancy, birth and small children, with an additional focus on mental wellbeing and where to find help. This spontaneous commitment was greatly appreciated and showed the resilience of the partners.

AP Hogeschool conducted an additional analysis on the impact of COVID-19 on the psychological health of pregnant and postpartum women in Flanders before and during the pandemic. This was possible as the Flemish questionnaires were already distributed in Flanders among pregnant and newly delivered women before the first lockdown occurred. The findings of these analyses were published in the scientific journal PlosOne and are publicly available.

Publications and presentations

The results and tools of the PATH project were disseminated through various channels. Survey results were published in peer-reviewed (inter)national journals. Several PATH partners were able to present the results at (inter)national conferences through presentations and posters. An overview of publications and presentations by all partners can be found below.



Publications

- Bleijenbergh R, Van den Branden L, van Gils Y, Van de Craen N, Kuipers Y. Validation of the postpartum bonding questionnaire: a cross-sectional study among Flemish mothers. Midwifery. 2022
- Brosens C, van Gils Y, Van den Branden L, Bleijenbergh R, Rimaux S, Mestdagh E, Kuipers
 Y. Coping behaviour associated with pregnancy-related anxiety: a cross-sectional study
 International journal of Childbirth (accepted)
- De Moor, S., Jacobs, K., Steckel, S., Tency, I. Perceptions of pregnant and postpartum women during coronacrisis. Experience of care provision during the initial lockdown period mapped. Journal of Midwifery, 2021, 27 (2), 83-90
- Kuipers, Y. PerinatAl menTal Health (PATH) Perinatal emotional health. The Obstetrician.
 2021; July/August.
- Kuipers Y, Mestdagh E. Emotional wellbeing of student midwives during COVID-19.
 Woman and Birth. 2022
- Kuipers Y, Bleijenbergh R, Van den Branden L, Van Gils Y, Rimaux S, Claerbout A, Mestdagh E. Psychological health of pregnant and postpartum women before and during the COVID-19 pandemic. PlosONE. 2022
- Nair, B. New project to support parents experiencing perinatal mental illness. Journal of General Practice Nursing. 2022; March.
- Van de Craen N, Van den Branden L, Kuipers Y. Committed and competent? Perceptions and experiences of Flemish midwives regarding their role in supporting the transition to parenthood up to the first year postpartum. Tijdschrift voor Vroedvrouwen. 2021; 27(1):17–23.

- Van den Branden L, Van de Craen N, Van Leugenhaege L, Mestdagh E, Timmermans O,
 Van Rompaey B, Kuipers Y. On cloud nine? Maternal emotional well-being six weeks up
 to one year postpartum A cross-sectional study (submitted)
- Van den Branden L, Van de Craen N, Van Leugenhaege L, Mestdagh E, Timmermans O,
 Van Rompaey B, Kuipers Y. Flemish midwives' perspectives on supporting women during
 the transition to motherhood: A Q-methodology study. Midwifery. 2022
- Van den Branden L, Van de Craen N, Mestdagh E, Timmermans O, Van Rompaey B, Kuipers Y. MetoWE: a Delphi-study of the midwife's tasks when supporting women during transition to parenthood (submitted)
- Van Gils Y., Bleijenbergh R., Brosens C., Van den Branden L., Rimaux S., Kuipers Y.J. The validation of the Brief COPE in a Belgian perinatal population. Maternal and Child Health Journal. 2022.
- FROEG Special (magazine): PATH project 2022
- Four Dutch Bachelor of Science students in obstetrics from the Obstetrics Academy Rotterdam, Rotterdam University of Applied Sciences and 1 Master of Science student in public health from the University of Amsterdam used quantitative data from PATH to write their thesis under the supervision of the AP evaluation team, successfully completing their studies.

Presentations

- Nair B, KuipersY. It takes a village...R Perinatal Quality Network Annual Forum Royal College of Psychiatrists (11/11/19)
- Van den Branden L. On cloud nine? Maternal emotional well-being six weeks up to one year postpartum - A cross-sectional study. National Knowledge Centre Psychiatry & Pregnancy, The Netherlands Symposium Pregnancy and anxiety/depression/psychosis (17/01/20)
- Nair, B. International Marce Society Conference (06/10/20)
- Van den Branden L. On cloud nine? Maternal emotional well-being six weeks up to one year postpartum - A cross-sectional study - Conference Dublin (03/04/20)
- Society for Reproductive and Infant Psychology (SRIP) 41st (online) annual conference,
 Chester, United Kingdom (September 2021):
 - Kuipers Y. Validity and accuracy of the Whooley questions and Fear of Childbirth Scale to identify reduced antenatal emotional wellbeing
 - Brosens C. PATH Study Protocol poster presentation
- iHV Conference (April 2021)
- Nair B. Update PATH project. Perinatal Quality Network Annual Forum, Royal College of Psychiatrists Royal College of Psychiatrists South Eastern Division Autumn Conference 2021 (18/11/21)

- CARE 4 (February 2022):
 - Brosens C. Coping behaviour associated with pregnancy-related anxiety poster
 CARE 4 Ghent (Feb 2022)
 - Kuipers, Y., Bleijenberg, R., Van den Branden, L., van Gils, Y., Brosens, C., Tency, I.
 PerinAtal Mental health of pregnant and postpartum women across four North
 Sea coastal areas the Flemish online/digital tools. CARE4 International Scientific
 Nursing and Midwifery Conference, 8-10 February 2022 (online, symposium).
 - Tency, I. Brosens, C., Van den Branden L., Jacquemyn, Y. Identifying gaps and needs
 of health professionals on training with regard to perinatal mental health. CARE4
 International Scientific Nursing and Midwifery Conference, 8–10 February 2022
 (online, oral presentation)
 - Oral presentation Development What's up Mama. CARE4 International Scientific Nursing and Midwifery Conference, 8-10 February 2022 (online, oral presentation)
 - Mini-symposium PATH (content, purpose, interventions, evaluation). CARE4
 International Scientific Nursing and Midwifery Conference, 8-10 February 2022
 (online, oral presentation)
 - Kuipers, Y. Poster presentation: Validity and accuracy of the Whooley questions and Fear of Childbirth Scale to identify reduced antenatal emotional well-being
 - Van den Branden L. Poster presentation: Midwives' perceptions role & tasks in counselling pre- and postnatal women and maternal perinatal wellbeing
 - presentation
- Tency, I., Verduyckt, L. Midwife and pregnant? What now? Tips for pregnant employees and working mothers. Study day Main issue? Attention to yourself is not an afterthought!,
 Flemish Professional Organisation of Midwives, 24 March 2022 (lecture, webinar)
- Nair, B. Presentation at joint medical and NMP training event Care Grow Live (20/04/22)
- Nair, B. South East Perinatal Mental Health Webinar (26/04/22)
- Tency, I., Vallaey, E. Mental wellbeing and well-being of (future) parents in the workplace.
 Tips and tricks for employers. Info session Mental well-being of (future) parents in the workplace, Odisee University College and VOKA Health Community, 10 May 2022, Aalst
- Nordic Midwifey Congress, Helsinki (May 2022):
 - Mental wellbeing of pregnant and postpartum women before and during COVID-19
- Prior, F., Stickland D., Tency, I. Naber, F. Parents thriving in the workplace, Final conference
 PATH, 16 November 2022, Antwerp (presentation)
- Tang, W., Tency, I., Devlin, T., Zequn, L., Yichen, H. McGannan, S. Documenting perinatal mental health experience through interactive digital storytelling. Comics, linguistics, visual languages and artificial intelligence for mental health, eHealth Conference, Rome, 6-7/02/2023 (accepted, presentation)

Final conference

Finally, all the achievements were presented at PATH's final conference on 16 November 2022, at Kinepolis Antwerp.

The programme of this final conference was as follows:

Perinatal Mental
Health Conference

16 November 2022: 9:00 - 17:00 @ Kinepolis, Antwerp

Information and registration here.

https://bit.ly/PATIIconference

Call for positiv Augministion

A day of networking, learning and poster presentations in the field of perinatal mental health. Guest speakers include Candice

De Windt, Dr. Alain Gregoire, Dr. Tatiana Salisbury and Dr.

Lois McKellar, as well as interactive sessions on 'parents thriving in the workplace' and 'the role of healthcare professionals in promoting perinatal mental health'

To learn more about PATH go to: path-perinatal.eu

9:00 Arrival & coffees

9:30 Welcome from Candice De Windt: Care and welfare ambassador for the Flemish Government **and Hilde Crevits:** Deputy minister-president of the Flemish Government and Flemish minister of Welfare, Public Health and Family

And a short introduction from the Health and Europe Centre - Lead Partner of the PATH perinatal mental health project: Sophie McGannan

10:00 Guest speaker: Dr. Alain Grégoire

The power of alliances in fostering change

10:45 Guest speaker: Dr. Tatiana Salisbury

Looking after perinatal mental health in maternal and child health services

11:15 Guest speaker: Dr. Lois McKellar

Your time: Perinatal mental health in the palm of your hand

12:00 Networking lunch

13:00 "Parents thriving in the workplace"

Hosted by partners of the PATH project: Francesca Prior & Daniel Stickland (Southampton City Council), Inge Tency (Odisee) & Fabienne Naber (Maasstad)

Join our PATH team for an interactive learning session including recommendations and resources for supporting parents' perinatal mental health and wellbeing in the workplace, as well as findings from a pre, during and post COVID world of work across the UK, France, Belgium and the Netherlands

13:45 "The role of healthcare professionals in promoting perinatal mental health"

Hosted by partners of the PATH project: Dr. Bosky Nair (Kent and Medway NHS partnership trust), Christine Franckx (Gio VzW), Jacobien Wagemaker (Maasstad) & Nathalie Leone (World Health Organisation Collaborating Centre for Training and Research in Mental Health)

Join our cross-border PATH panel as they discuss and present work from the four PATH countries with a focus on how healthcare professionals can make a difference in primary care provision of perinatal mental health and promote parent-infant relationships.

14:30 Networking, further learning from the PATH project & poster presentations in the Terrace Room

During the afternoon we will actively bring together attendees to share good practices and discuss overcoming obstacles in education, policy making or practice by inviting applications for poster presentations.

Stands in the networking area include:

- Path of prepared parenting exhibition
- · Virtual reality exhibition
- Comic strip making
- Synappz digital health
- E-learnings from different partners
- What's up mama: online tool for pregnant and postpartum women
- Matrescence and wellbeing information for expectant and new parents
- Peer support from client association

16:00 Learning from PATH and closing - Prof. dr. Yvonne Fontein-Kuipers

(AP University College - PATH project partner) on the learning from and legacy of PATH

17:00 Conference end

During and after the various presentations by the guest speakers, there was an interactive moment with the audience each time. A microphone in the shape of a cube was thrown around the room, allowing conference participants to ask their questions. The afternoon was entirely devoted to presenting training courses and tools developed in the project. Again, participants were able to interact with the project partners. There was also the opportunity to network with attendees and project partners during lunch and the time in the afternoon. Many new contacts were made here. During these networking moments, the project partners obtained very positive feedback from the conference attendees, both on the tools and training sessions developed and on the guest speakers' presentations. This exciting, instructive day reached some 250 (student) caregivers, peer supporters, employers and sympathisers, including parents and parents-to-be. The day was very well received. A report of this engaging day was made into a short video.

This final conference, combined with all the tools and training, also achieved the following objective:

 Connecting women/families (including fathers), health professionals, employers and the wider community

Sustainability



Within this project, tools and training were mainly developed within the project's predetermined output and timeline. However, these developments are intended to be further refined and implemented in the operations of each organisation. The online hub, on which all online tools were made available, will continue to exist for another 5 years. However, information will no longer be kept up to date. Through the many links to the various organisations and external tools, we hope that this hub will remain a sustainable platform that many parents and parents-to-be, care providers, employers can access. Further funding is being sought to optimise and implement the developed materials and training in daily practice. Due to the many positive reactions to the PATH project, it is clear that there is a need to further explore the topic of 'perinatal mental health'. The PATH project was very valuable and gives us tools to continue working on it.

Two more sustainability objectives were also met by developing this online hub:

- Freely available tools and interventions were created
- A pool of knowledge was created





Within the four-year PATH project, it worked on two different work packages consisting of six outputs, each with different objectives.

Within the **first work package**, new, sustainable online services were designed to increase recognition and prevention of perinatal mental health and support the mental well-being of new families. Within the multimedia campaign (<u>PATH Output 1</u>) we reached more than 50 million people in the different countries and showed that there was largely an improvement in depressive symptoms as well as reduction of stigma. The online tools for healthcare providers and employers (<u>PATH Output 2</u>) were very enthusiastically received by (student) care providers. Within this output, no effect could be demonstrated based on this evaluation. The online tools for parents and parents-to-be (<u>PATH Output 3</u>) were very diverse across countries, but these were also very positively received. Within this output, we could show that in Flanders the tool had a positive effect, with mothers and mothers-to-be experiencing less anxiety and depressive symptoms, there was less stigma and more knowledge after using the tool. For the Netherlands and the UK, we could not demonstrate an effect within these outputs, mainly due to too few respondents. However, these outputs were positively received by users.

Within the **second work package**, new, sustainable face-to-face services were designed to increase recognition and prevention of PMI and support the mental well-being of new families. Training sessions for parents and parents-to-be (PATH Output 4) were developed based on the needs of families, and there was much praise from participants. Unfortunately, we could not demonstrate an impact within this output, mainly due to too few respondents. The trainings for caregivers (PATH Output 5) were very diverse and were delivered partly online and partly face-to-face. Within the Netherlands and Flanders, the analyses allowed us to demonstrate a positive effect. In the UK, we could not demonstrate an effect within this output, as there were no respondents here. Finally, the training sessions for peer supporters (PATH Output 6) were also very positively received. Here, a positive effect of the trainings in Flanders was demonstrated through

the evaluation. For the Netherlands and the United Kingdom, we could not demonstrate an effect within this output, mainly due to too few respondents. However, the participants of these trainings were very enthusiastic.



We can conclude that the overall objective was achieved in this project:

 PATH developed an inclusive, holistic health structure: demand-driven and in collaboration with experts by experience and (prospective) parents.

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Annexes

Disclaimer: The data are part of the Interreg 2 Seas Mers Zeeën programme and according to article 14 of the partnership agreement PATH 2 2S05-002 5 (06/02/2019), documents explicitly marked as confidential, the project partners will take measures to ensure that all staff involved in the project will respect the confidentiality of the data, will not disseminate the data, will not provide the data to third parties and will not use the data without the consent of the lead partner (Health & Europe Centre) or the partner who provided the data (AP Hogeschool Antwerp). According to article 14 of the partnership agreement PATH 2 2S05-002 5 (06/02/2019), requests for access to data are controlled by researchers of the evaluation partner of the PATH project (AP Hogeschool Antwerp). Therefore, data are only available upon request.

PATH Output 1 – Multimedia campaign to raise awareness and destigmatise PMI

Attachment 1.1 – Flanders, Belgium

Table 1 – Descriptive analyses	WP1.1 Belgium							
		PRE-MEASUREMENT POST-MEASUREMEN (N=1506) (N=244)						
			(N=1	506)		(N=2	44)	
Socio demographic factors								
		N	%					
Gender	Male	43	2,9					
	Female	1460	96,9		237			
	X	3	0,2		0			
Mother/partner	A (future) mother	1387	92,1		225	92,2		
	A partner	119	7,9		19	7,8		
Pregnant/postpartum	Pregnant	776	51,5		51	20,9		
	Postpartum	730	48,5		193	79,1		
Veekly working hours	I have no paid job	65	4,3		5	2,0		
	1-19 h	76	5		10	4,1		
	20-32 h	400	26,2		67	27,5		
	33-40 h	783	52		136	55,7		
	> 40 h	182	12,1		26	10,7		
Highest level of education	None	0	0		0	0		
	Lager onderwijs	18	1,2		1	0,4		
	BSO	48	3,2		5	2,0		
	7 ^{de} jaar BSO, volledige graad ASO, TSO of	230	15,3		33	13,5		
	KSO							
	Graduaat/Hoger beroepsonderwijs niveau 5,	693	46		120	49,2		
	Bachelor, BanaBa							
	Master, ManaMa, PhD	517	34,3		85	34,8		
Country of origin	Belgium	1408	93,5	N % 7 2,9 237 97,1 0 0 225 92,2 19 7,8 51 20,9 193 79,1 5 2,0 10 4,1 67 27,5 136 55,7 26 10,7 0 0 1 0,4 5 2,0 33 13,5 120 49,2				
	Other	98	6,5		4	1,6		
Relational status	Married, cohabiting, civil partnership	1448	96,1		238	97,5		
	In a relationship but living apart	7	0,5		2	0,8		
	Single	51	3,4		4	1,6		
	Widow/widower	0	0		0	0		
Children from a previous	Yes	59	3,9		6	2,5		
relationship	No	1447	96,1		238			
Religious	Yes	380	25,2					
5	No	1126	74,8					
	Yes	489	32,5					

Attachment 1.2 – The Netherlands

Table 1 – Descriptive analyses W	r 1.1 The Netherlanus		DDF				DOCT	UDENACNIE		
			PRE-MEAS							
Control of the Contro			(N=3	311)			% 0,6 99,4 0 92,8 7,2 21,1 78,9 9,0 7,2 65,1 14,5 4,2 0,6 3,0 16,9 24,1 33,1 22,3 94,6 5,4 96,4 0 3,6 0 4,8 95,2 20,5 79,5 39,2 60,8 81,5 18,5 18,5	56)		
Socio demografische factoren		1	0/	1			0/			
		N	%			N				
Gender	Male	31	10,0			1				
	Female	280	90,0			165				
	X	0	0			0				
Mother/partner	A (future) mother	258	83,0			154				
	A partner	53	17,0			12				
Pregnant/postpartum	Pregnant	173	55,6			35				
	Postpartum	138	44,4			131	78,9			
Weekly working hours	I have no paid job	22	7,1			15				
	1-19 h	27	8,7			12	7,2			
	20-32 h	134	43,1			108	65,1			
	33-40 h	90	28,9			24	14,5			
	> 40 h	38	12,2			7	4,2			
Highest level of education	None	0	0			1	% 0,6 5 99,4 92,8 2 7,2 5 2 7,2 1 1 78,9 5 9,0 2 7,2 8 65,1 4 14,5 4,2 0,6 3,0 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3 16,9 3			
	Basisschool, VMBO-basis	5	1,6			5	3,0			
	VMBO-kader, VMBO-theretisch, HAVO-4,	47	15,1			28	16.9			
	MBO-3		-,							
	HAVO-5, WVO, MBO-4	67	21,5			40	24,1			
	WVO (atheneum of gymnasium), HBO	120	38,6			55				
	(propedeuse)		-							
	WO, PhD	72	23,2			37	22,3			
Country of origin	The Netherlands	288	92,6			157	94,6			
, 0	Other	23	7,4			9	5,4			
Relational status	Married, cohabiting, civil partnership	296	95,2			160				
	In a relationship but living apart	2	0,6			0				
	Single	13	4,2			6	3.6			
	Widow/widower	0	0			0				
Children from a previous	Yes	23	7,4			8				
relationship	No	288	92,6			158				
Religious	Yes	72	23,2			34	•			
	No	239	76,8			132				
sychological problems in the	Yes	122	39,2			65				
oast	No	189	60,8		1	101				
reatment for these	INO	N=122	00,0	1	i	N=65	00,0			
reatment for these sychological problems	Yes	N=122 97	79,5	1	1	53	01 5	<u> </u>		
sychological problems		25		1						
On the standard and standards	No	_	20,5		1	12				
Psychological complaints in	Yes	88	28,3			62				
prothers/sisters/parents	No	194	62,4			93	56,0			

p-value personal/social stigma	0,003		0,223					
Knowledge depression (DLQ)								
Knowledge depression (DLQ	11,7218	4,85331	0	21	11,4853	4,1583	0	21
sumscore)								
Knowledge depression (DLQ items)	J	uist	Fout/ik w	Fout/ik weet het niet		ist	Fout/ik we	eet het niet
	N	%	N	%	N	%	N	%
1) People with depression often speak in a rambling and disjointed way.	118	44,4	148	45,6	46	33,8	90	66,2
2) People with depression may feel guilty when they are not at fault.	219	82,3	47	17,7	113	83,1	23	16,9
3) Reckless and foolhardy behaviour is a common sign of depression.	94	35,3	172	64,7	36	26,5	100	73,5
4) Loss of confidence and poor self-esteem may be a symptom of depression.	230	86,5	36	13,5	120	88,2	16	11,8
5) Not stepping on cracks in the footpath may be a sign of depression.	115	43,2	151	56,8	55	40,4	81	59,6
6) People with depression often hear voices that are not there.	154	57,9	112	42,1	66	48,5	70	51,5
7) Sleeping too much or too little may be a sign of depression.	231	87,2	34	12,8	119	87,5	17	12,5
8) Eating too much or losing interest in food may be a sign of depression.	226	85,0	40	15,0	120	88,2	16	11,8
9) Depression does not affect your memory and concentration.	194	72,9	72	27,1	107	78,7	29	21,3
10) Having several distinct personalities may be a sign of depression.		45,1	146	54,9	54	39,7	82	60,3
11) People may move more slowly or become agitated as a result of their		85,3	39	14,7	129	94,9	7	5,1
depression.								
12) Clinical psychologists can prescribe antidepressants.	140	52,6	126	47,4	65	47,8	71	52,2
13) Moderate depression disrupts a person's life as much as multiple sclerosis or	130	48,9	136	51,1	85	62,5	51	37,5
deafness.								
14) Most people with depression need to be hospitalised.	223	83,8	43	16,2	107	78,7	29	21,3
15) Many famous people have suffered from depression.	86	32,3	180	67,7	42	30,9	94	69,1
16) Many treatments for depression are more effective than antidepressants.	9	3,4	257	96,6	3	2,2	133	97,8
17) Counselling is as effective as cognitive behavioural therapy for depression.	45	16,9	221	83,1	11	8,1	125	91,9
18) Cognitive behavioural therapy is as effective as antidepressants for mild to	90	33,8	176	66,2	41	30,1	95	69,9
moderate depression.								
19) Of all the alternative and lifestyle treatments for depression, vitamins are	87	32,7	179	67,3	42	30,9	94	69,1
likely to be the most helpful.								
20) People with depression should stop taking antidepressants as soon as they	178	67,2	87	32,8	89	65,4	47	34,6
feel better.								ļ !
21) Antidepressants are addictive.	38	14,3	228	85,7	22	16,2	114	83,8
22) Antidepressant medications usually work straight away.	164	61,2	102	38,3	90	66,2	46	33,8

Attachment 1.3 – United Kingdom

Table 1 – Descriptive analyses			PRE-MEAS	SUREMENT		POST-MEASUREMENT (N=247)			
			(N=	902)		(N=247)			
Socio demographic factors									
		N	%		N				
Gender	Male	40	44,4		2	0,8			
	Female	861	95,5		243	98,4			
	X	1	0,1		2	0,8			
Mother/partner	A (future) mother	850	94,2		241	(N=247) % 0,8 98,4			
	A partner	52	5,8		6	2,4			
Pregnant/postpartum	Pregnant	278	30,8		116	47			
	Postpartum	624	69,2		131	53			
Weekly working hours	I have no paid job	106	11,8		45	N % 2 0,8 243 98,4 2 0,8 241 97,6 6 2,4 116 47 131 53 45 18,2 25 10,1 36 14,6 107 43,3 34 13,8 3 1,2 6 2,4 53 21,5 58 23,5 94 38,1 33 13,4 230 93,1 17 6,9 205 83,0 22 8,9 19 7,7			
	1-19 h	74	7,9		25	10,1			
	20-32 h	179	19,8		36	14,6			
	33-40 h	409	45,3		107	43,3			
	> 40 h	137	15,2		34	13,8			
Highest level of education	None	4	0,4		3	1,2			
_	Primary education/ Primary education and 3	11	1,2		6	2,4			
	years of secondary education								
	General Certificate of Secondary Education	139	15,4		53	21,5			
	(GSCE) CQF-level 1/EQF-level 2 BTEC level 3								
	(QCF levels 3/ EQF level 4)								
	Advanced levels (A-levels), GSCE level 3A,	154	17,1		58	23,5			
	General Certificate of Education (GCE A),								
	OCF-level (EQF-level 4)								
	International General Certificate of	374	41,5		94	38,1			
	Secondary Education (IGCSE), Cambridge O								
	Level, Cambridge International AS & A								
	Levels, Certificate higher education (OCF								
	level 4/ EQF level 5), Diploma higher								
	education (OCF level 5/ EQF level 5),								
	Bachelor degree (OCF level 6/ EQF level 6),								
	Honours degree (OCF level 6/ EQF level 6)								
	Master degree (OCF level 7/ EQF level 7),	229	24,4		33	13,4			
	Postgraduate Diploma/ certificate (OCF level								
	7/ EQF level 7), Doctoral degree								
Country of origin	United Kingdom	837	92,8			2,4 47 53 18,2 10,1 14,6 43,3 13,8 1,2 2,4 21,5 23,5 38,1			
	Other	65	7,2						
Relational status	Married, cohabiting, civil partnership	831	92,1						
	In a relationship but living apart	37	4,1						
	Single	33	3,7						
	Widow/widower	1	0,1		1	0,4			

N=624

N=131

Postpartum woman and partners

PATH Output 2 – a set of online resources for healthcare professionals and employers

Attachment 2.1 – Flanders, Belgium

Table 4 – Descriptive analyses W	r 1.2 Handers, Deigiuili		V0000	AFTING			NIC D C	TING	
		VOORMETING NAMETING (N=425) (N=109)							
Caria dana annombia fa atana			(N=2	+25)			(N=	109)	
Socio demographic factors	T	N	0/				0/		
O district and	Hardina and Share Education of State	N	%			N 100	%		
Online tool	Healthcare providers - E-learning perinatal mental well-being	-	-			108	99,1		
	Employers - 'Pregnancy' contact plan	-	1			1	0,9		
Gender	Male	20	4,7			1	0,9		
	Female	405	95,3			108	99,1		
	Х	0	0,0			0	0,0		
Having children	Yes	230	54,1			27	24,8		
sychological problems in the ast reatment for these sychological problems	No	195	45,9			82	75,2		
Psychological problems in the	Yes	127	29,9			23	21,1		
past	No	298	70,1			86	78,9		
Treatment for these		N=127				N=23	•		
psychological problems	Yes	92	72,4			14	60,9		
	No	35	27,6			9	39,1		
Been involved with someone in	Yes	198	70,1			64	58,7		
your environment with mental	No	127	29,9			45	41,3		
health issues			,				,		
I am	Healthcare professional (student)	401	94,4			108	99,1		
	Employer	24	5,6			1	0,9		
Healthcare professional		N=401				N=108			
	Vroedvrouw/verpleegkundige tweede lijn	232	57,9			90	83,3		
	Gynaecoloog	4	1,0			0	0,0		
	Huisarts	2	0,5			0	0,0		
	Pediater	0	0,0			0	0,0		
	Vroedvrouw/verpleegkundige eerste lijn	52	13,0			6	5,6		
	Kraamverzorgende	20	5,0			4	3,7		
	Doula	2	0,5			0	0,0		
	Sociaalwerker	23	5,7			0	0,0		
	Psycholoog	23	5,7			0	0,0		
	Student vroedvrouw/verpleegkundige	15	3,7			7	6,5		
	Begeleider/pedagoog/opvoeder	12	3,0			0	0,0		
	(Kinder)psychiater	5	1,2			0	0,0		
	Kinesist	3	0,7			0	0,0		

21) Antidepressants are addictive.	125	30,6	284	69,4	26	24,1	82	75,9
22) Antidepressant medications usually work straight away.	358	87,5	21	12,5	96	88,9	12	11,1

- <u>·</u>			PRE-MEAS	UREMENT		POST-MEASUREMENT				
			(N=	351)		(N=0)				
Socio demographic factors										
		N	%		N	%				
Gender	Male	6	1,7		-	-				
	Female	344	98		-	-				
	X	1	0,3		-	-				
Having children	Yes	247	70,4		-	-				
	No	104	29,6		-	-				
Psychological problems in the	Yes	106	30,2		-	-				
past	No	245	69,8		-	-				
Treatment for these		N=106	•		N=0		,			
psychological problems	Yes	70	66,0		-	-				
	No	36	34,0		-	-				
Been involved with someone in	Yes	234	66,7		-	-				
your environment with mental	No	117	33,3		-	-				
health issues			,							
am	Healthcare professional (student)	344	98,0		-	-				
	Employer	7	2,0		-	-				
Healthcare professional		N=344			N=0	•				
•	Vroedvrouw eerste of tweede lijn	277	80,5		-	-				
	Gynaecoloog	2	0,2		-	-				
	Huisarts	0	0,0		-	-				
	Pediater	4	1,2		-	-				
	Verpleegkundige	47	13,7		-	-				
	Kraamverzorgende	0	0,0		_	-				
	Doula	1	0,3		_	-				
	Sociaalwerker	3	0,9		-	-				
	Psycholog	0	0,0		_	_				
	Anders	10	2,9		_	_				
Werkgever - Herkent u zichzelf	1.7.7	N=7		<u> </u>	N=0	ı	1			
als leidinggevende of manager	Ja	7	100,0		-	_				
die betrokken is bij de	Nee	0	0,0		-	-				
(dagelijkse) organisatie rond de			0,0							
zwangere en de pas bevallen										
werkneemster (tot één jaar na de										
bevalling)?										
Employer – field/sector	Managers (chief executives, administrative	1	14,3		-	-				
	and commercial managers, production and									

Stigma depression		44,9117	6,74648	23	65	-	-	-	
(DSS sumscore)	Personal stigma	18,3989	3,45756	10	29	-	-	-	-
	Social stigma	26,5128	4,85436	12	45	-	-	-	-
	p-value personal/social stigma	<0,001	•	•	•		•	- Fout/ik wee N	
Knowledge depression (DLQ)	· · · · · · · · · · · · · · · · · · ·								
Knowledge depression (DLQ sumscore)		14,4133	3,30796	0	21	-	-	-	-
Knowledge depression (DLQ items	5)	J	uist	Fout/ik we	eet het niet	Ju	ist	Fout/ik we	et het niet
		N	%	N	%	N	%	N	%
1) People with depression often sp	peak in a rambling and disjointed way.	251	72,5	95	27,5	-	-	-	-
, , , , , , , , , , , , , , , , , , , ,	el guilty when they are not at fault.	306	88,4	40	11,6	-	-	-	-
3) Reckless and foolhardy behavio	our is a common sign of depression.	209	60,4	137	39,6	-	-	-	-
4) Loss of confidence and poor sel	f-esteem may be a symptom of depression.	307	88,7	39	11,3	-	-	-	-
	potpath may be a sign of depression.	190	54,9	156	45,1	-	-	-	_
6) People with depression often h	. , , ,	246	71,1	100	28,9	-	-	-	-
7) Sleeping too much or too little	may be a sign of depression.	330	95,4	16	4,6	-	-	-	-
8) Eating too much or losing interes	est in food may be a sign of depression.	332	96,0	16	4,0	-	-	-	-
9) Depression does not affect you	r memory and concentration.	301	87,0	45	13,0	-	-	-	-
10) Having several distinct person	alities may be a sign of depression.	207	60,0	138	40,0	-	-	-	-
11) People may move more slowly	or become agitated as a result of their	333	96,2	13	3,8	-	-	-	-
depression.									
12) Clinical psychologists can pres	cribe antidepressants.	280	80,9	66	19,1	-	-	-	-
13) Moderate depression disrupts	a person's life as much as multiple sclerosis or	228	66,1	117	33,9	-	-	-	-
deafness.									
14) Most people with depression	need to be hospitalised.	331	95,7	15	4,3	-	-	-	-
15) Many famous people have suf	·	127	36,7	219	63,3	-	-	-	-
	on are more effective than antidepressants.	16	4,6	330	95,4	-	-	-	-
17) Counselling is as effective as c	ognitive behavioural therapy for depression.	42	12,1	304	87,9	-	-	-	-
18) Cognitive behavioural therapy	is as effective as antidepressants for mild to	137	39,6	209	60,4	-	-	-	-
moderate depression.									
•	tyle treatments for depression, vitamins are	127	36,7	219	63,3	-	-	-	-
likely to be the most helpful.									
	d stop taking antidepressants as soon as they	289	83,7	57	16,5	-	-	-	-
feel better.								<u> </u>	
21) Antidepressants are addictive.		95	27,5	251	72,5	-	-	-	
22) Antidepressant medications us	sually work straight away.	303	87,6	43	12,4	-	-	-	-

22) Antidepressant medications usually work straight away.	206	92.4	17	7.6	8	88.9	1	1.11
22// mindepressant medications assault work straight array.	_00	J = , .		.,.	_	00,0	_	-,

Attachment 3.1 – Flanders, Belgium

Tabel 7 – Descriptive analyses	WP1.1 Belgium		PRE-MEAS	UREMENT		POST-MEASURE	MENT
			(N=1			(N=78)	
Socio demographic factors			<u> </u>		<u> </u>		
<u> </u>		N	%		N	%	
Gender	Male	-	-		78	100,0	
Geslacht	Female	43	2,9		0	0,0	
Mother/partner	Х	1460	96,9		78	100,0	
	A (future) mother	3	0,2		0	0,0	
Moeder/partner	A partner	1387	92,1		75	96,2	
Pregnant/postpartum	Pregnant	119	7,9		3	3,8	
Zwanger/bevallen	Postpartum	776	51,5		30	38,5	
Weekly working hours	I have no paid job	730	48,5		48	61,5	
Uren werken per week	1-19 h	65	4,3		4	5,1	
Gender	20-32 h	76	5		5	6,4	
	33-40 h	400	26,2		22	28,2	
	> 40 h	783	52		36	46,2	
	Male	182	12,1		11	14,1	
Highest level of education	None	0	0		0	0,0	
	Lager onderwijs	18	1,2		1	1,3	
	BSO	48	3,2		10	12,8	
	7de jaar BSO, volledige graad ASO, TSO of KSO	230	15,3		0	0,0	
	Graduaat/Hoger beroepsonderwijs niveau 5, Bachelor, BanaBa	693	46		37	47,4	
	Master, ManaMa, PhD	517	34,3		30	38,5	
Country of origin	Belgium	1408	93,5		71	91,0	
-	Other	98	6,5		7	9,0	
Relational status	Married, cohabiting, civil partnership	1448	96,1		76	97,4	
	In a relationship but living apart	7	0,5		1	1,3	
	Single	51	3,4		1	1,3	
	Widow/widower	0	0		0	0,0	
Children from a previous	Yes	59	3,9		1	1,3	
relationship	No	1447	96,1		77	98,7	
Religious	Yes	380	25,2		9	11,5	
	No	1126	74,8		69	88,5	
	Yes	489	32,5		37	47,4	

Stigma depression		47,0498	8,4848	20	70	44,2857	8,37972	31	59
(DSS sumscore)	Personal stigma	27,1297	5,39254	9	43	17,9286	5,18080	11	27
	Social stigma	19,9252	4,59148	9	35	26,3571	4,36079	18	33
	p-value personal/social stigma	0,003			_				
Knowledge depression (DLQ)	·								
Knowledge depression (DLQ)		11,7218	4,85331	0	21	10,3469	5,27001	0	18
Knowledge depression (DLQ i	tems)	J	uist	Fout/ik we	eet het niet	Ju	iist	Fout/ik we	eet het niet
		N	%	N	%	N	%	N	%
1) People with depression oft	en speak in a rambling and disjointed way.	118	44,4	148	45,6	4	30,8	9	69,2
2) People with depression ma	ay feel guilty when they are not at fault.	219	82,3	47	17,7	9	69,2	4	30,8
3) Reckless and foolhardy bel	naviour is a common sign of depression.	94	35,3	172	64,7	2	15,4	11	84,6
4) Loss of confidence and poo	or self-esteem may be a symptom of depression.	230	86,5	36	13,5	9	69,2	4	30,8
5) Not stepping on cracks in t	he footpath may be a sign of depression.	115	43,2	151	56,8	4	30,8	9	69,2
6) People with depression oft	en hear voices that are not there.	154	57,9	112	42,1	8	61,5	5	38,5
7) Sleeping too much or too li	ittle may be a sign of depression.	231	87,2	34	12,8	9	69,2	4	30,8
8) Eating too much or losing i	nterest in food may be a sign of depression.	226	85,0	40	15,0	8	61,5	5	38,4
9) Depression does not affect	your memory and concentration.	194	72,9	72	27,1	9	69,2	4	30,8
10) Having several distinct pe	rsonalities may be a sign of depression.	120	45,1	146	54,9	7	53,8	6	46,2
11) People may move more s	lowly or become agitated as a result of their	227	85,3	39	14,7	11	84,6	2	15,4
depression.									
12) Clinical psychologists can	prescribe antidepressants.	140	52,6	126	47,4	6	46,2	7	53,8
13) Moderate depression disr deafness.	rupts a person's life as much as multiple sclerosis or	130	48,9	136	51,1	8	61,5	5	38,5
14) Most people with depress	sion need to be hospitalised.	223	83,8	43	16,2	10	76,9	3	23,1
15) Many famous people hav	e suffered from depression.	86	32,3	180	67,7	5	38,5	8	61,5
16) Many treatments for dep	ression are more effective than antidepressants.	9	3,4	257	96,6	0	0,0	13	100,0
17) Counselling is as effective	as cognitive behavioural therapy for depression.	45	16,9	221	83,1	2	15,4	11	84,6
18) Cognitive behavioural the	erapy is as effective as antidepressants for mild to	90	33,8	176	66,2	2	15,4	11	84,6
moderate depression.									
19) Of all the alternative and likely to be the most helpful.	lifestyle treatments for depression, vitamins are	87	32,7	179	67,3	2	15,4	11	84,6
20) People with depression sl	hould stop taking antidepressants as soon as they	178	67,2	87	32,8	9	69,2	4	30,8
feel better.	,						•		•
21) Antidepressants are addic	ctive.	38	14,3	228	85,7	1	7,7	12	92,3
22) Antidepressant medication	ons usually work straight away.	164	61,2	102	38,3	9	69,2	4	30,8

N=588

7,27

N

N=624

2,298

%

10

N=0

N=0

%

Feel prepared to be a parent

Mothers postpartum

Postpartum women and partners

Score 1 (minimally prepared) - 10

(maximally prepared)

21) Antidepressants are addictive.	297	36,1	526	63,9	-	-	-	-
22) Antidepressant medications usually work straight away.	654	79,5	169	20,5	-	-	-	-

PATH Output 4 - a set of support sessions for new families

Attachment 4.1 – Flanders, Belgium

Table 10 – Descriptive analyses \	WP2.1 Belgium						
			PRE-MEAS (N=	UREMENT		POST-MEASUR (N=0)	EMENT
Socio demographic factors			(14-	20)		(14-0)	
socio demograpine raccors		N	%		N	%	
Gender	Male	3	11,5		-	-	
	Female	23	88,5		_	_	
	X	0	0,0		-	-	
Mother/partner	A (future) mother	22	84,6		-	-	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	A partner	4	15,4		-	-	
Pregnant/postpartum	Pregnant	23	88,5		-	-	
.0,	Postpartum	3	11,5		_	-	
Weekly working hours	I have no paid job	1	3,8		-	-	
, , ,	1-19 h	0	0,0		-	-	
	20-32 h	7	26,9		-	-	
	33-40 h	14	53,8		-	-	
	> 40 h	4	15,4		-	-	
Highest level of education BE		N=7	· · · · · · · · · · · · · · · · · · ·	1	N=0		I.
ingliest level of education be	None	0	0,0		-	-	
	Lager onderwijs	0	0,0		-	-	
	BSO	1	14,3		-	-	
	7de jaar BSO, volledige graad ASO, TSO of KSO	2	28,6		-	-	
	Graduaat/Hoger beroepsonderwijs niveau 5, Bachelor, BanaBa	1	14,3		-	-	
	Master, ManaMa, PhD	3	42,9		-	-	
Highest level of education NL		N=19			N=0		•
	None	0	0,0		-	-	
	Basisschool, VMBO-basis	0	0,0		-	-	
	VMBO-kader, VMBO-theretisch, HAVO-4, MBO-3	3	15,8		-	-	
	HAVO-5, WVO, MBO-4	6	31,6		-	-	
	WVO (atheneum of gymnasium), HBO (propedeuse)	5	26,3		-	-	
	WO, PhD	5	26,3	1	-	-	
Country of origin	Belgium	6	23,1	1	-	-	
-	The Netherlands	19	73,1		-	-	

N=3

3,8

88,5

3,8

7,7

0,0

0,0

_

-

N=

%

23

1

2

0

0

Other

Single

Yes

Widow/widower

(maximally prepared)

Married, cohabiting, civil partnership
In a relationship but living apart

Relational status

Children from a previous

Postpartum women and partners

66,7

Way of giving birth

Vaginal birth

	Sumscore total			5,661	5,50457			-	-
Female partners		N=1				N=O			
	Increased risk (≥12)	0	0,0			-	-		
	Sumscore total			8,000	0			-	-
Resilience (BRS)	•								
		M	SD	Min	Max	M	SD	Min	Max
Resilience (BRS sumscore)		3,5321	0,71805	2	5	-	-	-	-
		N	%			N	%		
	High resilience	4	15,4			-	-		
	Normal resilience	17	65,4			-	-		
	Low resilience	5	19,2			-	-		
Self-esteem (RSES)									
		M	SD	Min	Max	M	SD	Min	Max
(RSES sumscore)		16,3684	4,86724	10	27	-	-	-	-
Mental Help Seeking Attitudes	(MHSAS)						•		
(MHSAS sumscore)		5,4017	0,95171	3,78	6,33	-	-	-	-
Mental Help Seeking Intention	(MHSIS)								
(MHSIS sumscore)		5,93590	1,31663	2	7	-	-	-	-
Attachment	•								
MAAS		N=21				N=O			
	Sumscore	77,2857	5,96335	68	89	-	-	-	-
	Subscale - time	27,1429	3,69169	22	36	-	-	-	-
	Subscale - quality	46,1429	2,55511	40	49	-	-	-	-
PAAS		N=2		•	•	N=O			•
	Sumscore	58,500	2,12132	57	60	-	-	-	-
	Subscale - time	17,000	4,24264	14	20	-	-	-	-
	Subscale - quality	32,00	2,82823	30	34	-	-	-	-
MPAS		N=1			•	N=O			•
	Sumscore	83,200	0	83,2	83,2	-	-	-	-
	Subscale – pleasure in interaction	19,000	0	19	19	-	-	-	-
PPAS	·	N=2	•			N=0	•	•	
	Sumscore	73,400	3,25269	71,1	75,7	-	-	-	-
	Subscale – pleasure in interaction	16,450	1,20208	15,6	17,3	-	-	-	-

SD

5,52002

М

23.333

Min

15

Max

35

М

SD

Min

Max

2,088

2,668

%

4,8

10

10

N

%

1

did you feel prepared for parenthood?

Screening anxiety - Whooley*

(RSES sumscore)

did your expectations of parenthood match with reality?

1x yes

Increased probability anxiety (Whooley*/GAD2)

Adv. d. I Hala Co. III a contra	I (BAUCAC)								
Mental Help Seeking Attitud	les (MHSAS)			1				•	
(MHSAS sumscore)		5,8086	0,77338	3,78	6,33	-	-	-	-
Mental Help Seeking Intenti	on (MHSIS)								
		N=O							
(MHSIS sumscore)		-	-	-	-	-	-	-	-
Attachment									
MAAS		N=1				N=O			
	Sumscore	75	0	75	75	-	-	-	-
	Subscale - time	21	0	21	21	-	-	-	-
	Subscale - quality	50	0	50	50	-	-	-	-
PAAS		N=O	N=0					_	
	Sumscore	-	-	-	-	-	-	-	-
	Subscale - time	-	-	-	-	-	-	-	-
	Subscale - quality	-	-	-	-	-	-	-	-
MPAS		N=16				N=O			
	Sumscore	65,5367	15,17925	40,23	95	-	-	-	-
	Subscale – pleasure in interaction	15,0933	4,91637	8	25	-	-	-	-
PPAS		N=4				N=0			
	Sumscore	61,3200	1,3582	60,13	62,8	-	-	-	-
	Subscale – pleasure in interaction	13,9667	1,1547	13,3	15,3	-	-	-	-

PATH Output 5 - face to face training course for healthcare professionals

Attachment 5.1 – Flanders, Belgium

			PRE-MEAS (N=1		POST-MEASURE (N=85)	MENT
Socio demographic factors				 		
		N	%	N	%	
Training	Training around mental health during the perinatal period for caregivers			49	57,6	
	Train-the-trainer: Perinatal mental health practice specialist, part 2: organizational dynamics			4	4,7	
	Hoofdzaak: tips & tricks for dealing with the 'fragile' cloud			18	21,2	
	Lesson UA 17/3/22 - Mental health in the perinatal period			2	2,4	
	Hoofdzaak: paying attention to yourself is not an afterthought			12	14,1	
Gender	Male	1	0,6	1	1,2	
	Female	179	99,4	84	98,8	
	Х	0	0,0	0	0,0	
Having children	Yes	130	72,2	61	71,8	
	No	59	27,8	24	28,2	
Psychological problems in the	Yes	75	41,7	33	38,8	
past	No	105	58,3	52	61,2	
Treatment for these		N=75		N=33		<u> </u>
psychological problems	Yes	58	77,3	28	84,8	
	No	48	26,1	5	15,2	
Been involved with someone in	Yes	132	73,3	58	68,2	
your environment with mental health issues	No	48	26,7	27	31,8	
Healthcare professional	Vroedvrouw/verpleegkundige tweede lijn	103	57,2	48	56,5	
	Gynaecoloog	2	1,1	3	3,5	
	Huisarts	0	0,0	0	0,0	
	Pediater	0	0,0	0	0,0	
	Vroedvrouw/verpleegkundige eerste lijn	33	18,3	14	16,5	
	Kraamverzorgende	9	5,0	3	3,5	
	Doula	0	0,0	0	0,0	

51

31,9

109

68,1

30

39,5

46

60,5

2

11

7

13

М

1,1

6,1

3,9

7,2

SD

Min

Max

2

3

4

8

М

2,4

3,5

4,7

9.4

SD

Min

Max

Sociaalwerker

Student vroedvrouw/verpleegkundige

Psycholoog

Anders

feel better.

21) Antidepressants are addictive.

22) Antidepressant medications usually work straight away.	144	90,0	16	10,0	68	89,5	8	10,5
GSE								
	M	SD	Min	Max	M	SD	Min	Max
(GSE sumscore)	28,681	3,4115	12	40	30,3086	2,83533	24	38
PIMMHS								
(PIMMHS sumscore)	11,9294	11,9294 2,90394 6 20		12,1059	2,93997	6	19	

PATH Output 6 – peer supporter training and a network of intergenerational support groups

Attachment 6.1 – Flanders, Belgium

			PRE-MEAS (N=1					SUREMENT =35)	
Socio demografische factoren									
		N	%			N	%		
Gender	Male	1	0,9			0	0,0		
	Female	109	99,1			35	100,0		
	X	0	0,0			0	0,0		
Having children	Yes	17	15,5			7	20,0		
	No	93	84,5			28	80,0		
Psychological problems in the	Yes	33	30,0			8	22,9		
past	No	77	70,0			27	77,1		
Treatment for these		N=33				N=8			•
psychological problems	Yes	20	60,6			7	87,5		
	No	13	39,4			1	12,5		
Been involved with someone in	Yes	62	56,4			23	65,7		
your environment with mental health issues	No	48	43,6			12	34,3		
What is your relationship with	Student	-	-			15	42,9		
the (future) parent for whom you	Family	-	-			4	11,4		
were/are a peer supporter?	Friend	-	-			12	34,4		
	Missing	-	-			4	11,4		
		М	SD	Min	Max	М	SD	Min	Max
Age		22,18	5,141	18	40	21,4	5,036	18	37
Depression stigma (DSS)				•	•				
		M	SD	Min	Max	M	SD	Min	Max
Stigma depression		49,9909	6,41743	23	67	52,0857	5,36531	43	64
(DSS sumscore)	Personal stigma	20,1909	3,84205	14	36	20,2857	2,87557	14	26
	Social stigma	29,8000	5,17545	9	45	31,8000	4,07874	23	40
	p-value personal/social stigma	0,902			•	0,972			
Knowledge depression (DLQ)									
Knowledge depression (DLQ sumscore)		11,3714	3,14849	0	17	13,4571	3,26607	5	20
Knowledge depression (DLQ items))	J	uist	Fout/ik we	et het niet	Ju	ist	Fout/ik we	eet het niet
,		N	%	N	%	N	%	N	%
1) People with depression often sp	eak in a rambling and disjointed way.	35	33,3	70	66,7	15	42,9	20	57,1
, , ,	. 0		,-		,			_	- ,-

(GSE sumscore)	29,4	3,85089	19	40	29,6857	2,6738	25	37
GSE	M	SD	Min	Max	М	SD	Min	Max
22) Antidepressant medications usually work straight away.	65	61,9	40	38,1	22	62,9	13	37,1
21) Antidepressants are addictive.	10	9,5	95	90,5	17	48,6	18	51,4
feel better.								
20) People with depression should stop taking antidepressants as soon as they	69	65,7	36	34,3	29	82,9	6	17,1
19) Of all the alternative and lifestyle treatments for depression, vitamins are likely to be the most helpful.	31	29,5	74	70,5	17	48,6	18	51,4
moderate depression.								
18) Cognitive behavioural therapy is as effective as antidepressants for mild to	30	28,6	75	71,4	10	28,6	25	71,4
17) Counselling is as effective as cognitive behavioural therapy for depression.	8	7,6	97	92,4	15	42,9	20	57,1
16) Many treatments for depression are more effective than antidepressants.	4	3,8	101	96,2	13	37,1	22	62,9
15) Many famous people have suffered from depression.	57	54,3	48	45,7	22	62,9	13	37,1
14) Most people with depression need to be hospitalised.	89	84,8	16	15,2	30	85,7	5	14,3
deafness.				,=		,-		,5
13) Moderate depression disrupts a person's life as much as multiple sclerosis or	58	55,2	47	44,8	20	57,1	15	42,9
12) Clinical psychologists can prescribe antidepressants.	52	49,5	53	50,5	18	51,4	17	48,6
depression.	34	63,5	'1	10,5	32	31,4	3	0,0
11) People may move more slowly or become agitated as a result of their	94	89,5	11	10,5	32	91,4	3	8,6
10) Having several distinct personalities may be a sign of depression.	34	32,4	71	67,6	12	34,3	23	65,7
8) Eating too much or losing interest in food may be a sign of depression. 9) Depression does not affect your memory and concentration.	93 78	88,6 74,3	27	11,4 25,7	27	94,3 77,1	8	22,9
7) Sleeping too much or too little may be a sign of depression.	91	86,7	14 12	13,3	33	88,6 94,3	2	11,4 5,7
6) People with depression often hear voices that are not there.	38 91	36,2	67	63,8	13 31	37,1	22	62,9
5) Not stepping on cracks in the footpath may be a sign of depression.		36,2	l	63,8	19	54,3	16	45,7
4) Loss of confidence and poor self-esteem may be a symptom of depression.	92 38	87,6	13 67	12,4	34	97,1	1	2,9
3) Reckless and foolhardy behaviour is a common sign of depression.	38	36,2	67	63,8	13	37,1	22	62,9
2) People with depression may feel guilty when they are not at fault.	90	85,7	15	14,3	29	82,9	6	17,1