BEWISE

Bed rest with a short cervix on preterm birth

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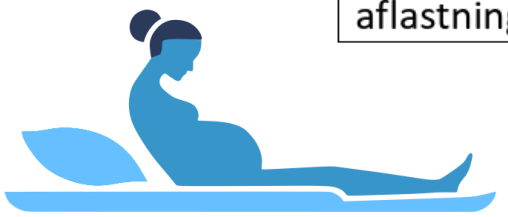
REGION Nordsjællands Hospital

1495 UNIVERSITY OF ABERDEEN

AFLASTNING I DANMARK – DSOG 2017

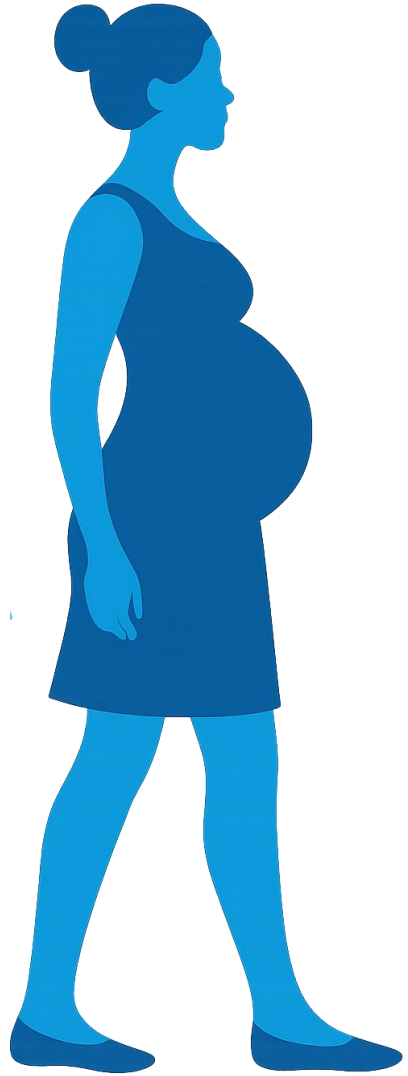
Resumé af kliniske rekommandationer

Aflastning i graviditeten til forebyggelse af PPI bør begrænses til kvinder med GA under 28+0	D
Der anbefales **streng** aflastning ved PPI/PPROM hos: -Singleton med cervix <10mm -Gemelli med cervix <15 mm	D
Der anbefales **moderat** aflastning ved PPI/PPROM hos: -Singleton med cervix 10-15 mm -Gemelli med cervix 15-20 mm	D
Der anbefales ikke aflastning pga PPROM hos kvinder med lang cervix (>25 mm)	D
Tromboseprofylakse anbefales ved aflastning (LMWH samt non-medikamentel behandling)	B
Osteoporoseprofylakse kan overvejes hos risikopatienter ved aflastning	D



5. DSOG Guideline 2017; Aflastning i graviditeten: www.dsog.dk/obstetrik

Region	Syddanmark	Nord	Hovedstaden	Midt	Midt2	Nord2
Hospital	OUH og Svendborg		Rigshospitalet			
Instruks	Aflastning i graviditeten	Cervixinsufficiens og cervixskanning	Cervixinsufficiens, cerclage og arabinpessar	Cervixinsufficiens	PPI***	Truende præterm fødsel før GA 37+0
OPD	31-10-2023	03-10-2023	09-06-2020	06-12-2024	30-10-2024	23-02-2014
Definitioner (gælder for)	Præmature kontraktioner, PPROM og cervixinsufficiens	Cervixinsufficiens: Anamnestisk** eller Cervix < 25 mm	Cervixinsufficiens = smertefri afkortning og dilatation af livmoderhalsen med evt. prolaps eller bristning af fosterhinder før termin.	Cervixinsufficiens: Cervix < 25 mm UDEN kontraktioner (gælder ikke PPI med veer)		Singletongravide med kontraktioner
Indikation for AR	GA < 28 med PPI/PPROM og -->	GA < 34+0 og cervix < 25 mm*	GA < 34+0 og cervixinsufficiens (+ evt PPROM)	GA < 32+0 og cervix < 15 mm, sep GA 32+0	Anbefaler ikke aflastning	GA < 28 med PPI
Streng AR	Cervix < 10 mm	Cervix < 15 mm	Cervix < 10 mm	Cervix < 10 mm		Cervix < 10 mm
Moderat AR	Cervix 10-15 mm	Cervix 15-25 mm	Cervix 10-15 mm	Cervix 10-14 mm		Cervix 10-15 mm
Let AR			Cervix 15-25 mm			
AR sep				Streng indtil GA 28 -> herefter moderat. Sep GA 32.		AR sep gradvist fra GA 28+0, aldrig efter 34+0.
Fragmin+TED	Ja, indtil fuldt mobiliseret	Ja, ved streng	Ja, ved streng	Ja, ved streng		Ja, ved streng
Osteoporoseprofylakse	Overvejes					Ca+ ved streng
Progesteron		Ja, ved debut i GA < 30	Ja, cervix < 25 i GA <28	Ja, ved cervix < 25 mm før GA 30	Ja, før GA 30	Ja, ved cervix < 25 mm
Lungemodning		Ja, ved cervix < 15 mm	Overvejes ved streng	Overvejes ved streng og moderat	Ja, før GA 34+0	Ja, ved cervix < 15 mm
Magnesiumsulfat				Overvejes ved streng	Ja, i GA 24+0-31+6	Overvejes ved cervix < 15 mm
Laksantia				Ja, ved streng		Ja, ved streng
Sengeøvelser	Ja					Ja, ved streng
Cerclage			Overvejes	Overvejes ved streng (el længere cervix ved anamnestisk cervixinsufficiens)		
Arabinpessar		Overvejes	Ja, ved cervix 10-20 mm	Ja, ved cervix 10-20 mm		Ja, ved cervix 10-25 mm
Indlæggelse		Ja, ved streng, indtil GA 28	Ja, ved streng			Ja, ved cervix < 15 mm
Sygemelding		Ja ved cervix < 25	Ja, ved streng. Overvejes ved moderat.			
Note 1		Streng: kontrol efter 1 uge, herefter individuel plan.	Stigende mobilisering fra GA 28-30. Moderat: se instruks.	Ingen sex indtil 30+0.		Indenfor den første uge skal aflastningsregimet revurderes ved speciallæge. Aflastning efter GA 28 ved tidl præterm fødsle < GA 28 eller cerclage



A

HOTEL VEJLEFJORD

B

BEWISE

Bed rest with a short cervix on preterm birth

- ✓ DSOG styregruppe
- ✓ Videnskabsetisk komité

B

BEWISE

Bed rest with a short cervix on preterm birth

BAGGRUND

Antal med cervix under 25 mm	% af fødsler i DK	Antal 1 år	Antal 3 år
Region Midt	24	261	783
Alle regioner	100	1088	3263

Antal med cervix under 10 mm	% af fødsler i DK	Antal 1 år	Antal 3 år
Region Midt	24	43	129
Alle regioner	100	179	538

PTB prævalens

- ~ 6% i Danmark
  - ⬅ 4.000 børn/år

UL-data fra Region Midt

- Cervix < 25 mm: ~ 1000 /år
- Cervix < 10 mm: ~ 180 /år

Dansk Pædiatrisk Selskab. Ambulant opfølgning af meget prætermt fødte børn. www.paediatri.dk: Dansk Pædiatrisk Selskab; 2022

AFLASTNING OG PRÆTERM FØDSEL

Systematic Review

Impact of Physical Activity Interventions on High-Risk Pregnancies: A Systematic Review and Meta-Analysis

Cristina Silva-Jose [1], Michelle F. Mottola [2], Montse Palacio [3], Miguel Sánchez-Polán [1], Dingfeng Zhang [1], Ignacio Refoyo [4] and Rubén Barakat [1,*]

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3 Department of Maternofetal Medicine, Hospital Clínic (BCNatal-Fetal Medicine Research Center), Universitat de Barcelona, Fundació de Recerca Clínic Barcelona-IDIBAPS, 08036 Barcelona, Spain; mpalacio@clinic.cat
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* Correspondence: rubenomar.barakat@upm.es

AFLASTNING OG PRÆTERM FØDSEL

RCT-studier

- Elliot, 2005
- Saccone, 2023

Kohortestudier

- Grobman 2013
- Saccone, 2018
- Levin, 2018
- Zemet, 2018
- Bitar, 2022

AFLASTNING OG PRÆTERM FØDSEL

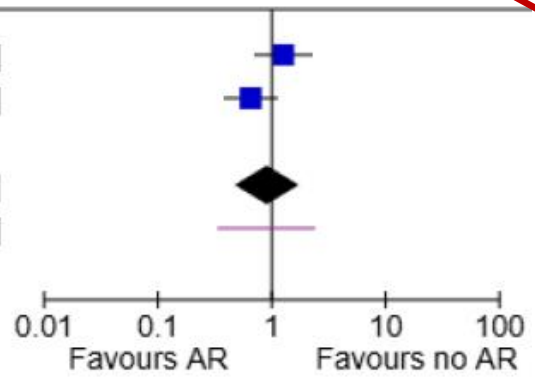
RCT-studier

Meta-analyse: Vores egen ☺

Ikke udgivet data

Study or Subgroup	Activity restriction Events	Total	No Actitvity restriction Events	Total	Weight	Risk ratio IV, Random, 95% CI
Elliott 2005	16	36	13	37	49.1%	1.26 [0.72 , 2.24]
Saccone 2023	15	60	23	60	50.9%	0.65 [0.38 , 1.12]
Total (Wald[a])		**96**		**97**	**100.0%**	**0.90 [0.47 , 1.73]**
95% prediction interval						[0.34 , 2.40]
Total events:	31		36			

Test for overall effect: Z = 0.31 (P = 0.76)



Heterogeneity: Tau² (DL[b], 95% CI) = 0.14 [0.00 , >100]; Chi² = 2.72, df = 1 (P = 0.10); I² = 63%

AFLASTNING OG PRÆTERM FØDSEL

Kohortestudier

Activity Restriction Among Women With a Short Cervix

William A. Grobman, MD, MBA, Sharon A. Gilbert, MBA, PhD, Jay D. Iams, MD, Catherine Y. Spong, MD, George Saade, MD, Brian M. Mercer, MD, Alan T. N. Tita, MD, PhD, Dwight J. Rouse, MD, Yoram Sorokin, MD, Kenneth J. Leveno, MD, Jorge E. Tolosa, MD, MSCE, John M. Thorp, MD, Steve N. Caritis, MD, J. Peter Van Dorsten, MD, and **for the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units (MFMU) Network***

Departments of Obstetrics and Gynecology, Northwestern University, Chicago, Illinois, The Ohio State University, Columbus, Ohio, University of Texas Medical Branch, Galveston, Texas, Case Western Reserve University–MetroHealth Medical Center, Cleveland, Ohio, University of Alabama at Birmingham, Birmingham, Alabama, Brown University, Providence, Rhode Island, Wayne State University, Detroit, Michigan, University of Texas Southwestern Medical Center, Dallas, Texas, Oregon Health & Science University, Portland, Oregon, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, University of Pittsburgh, Pittsburgh, Pennsylvania, and Medical University of South Carolina, Charleston, South Carolina; the George Washington University Biostatistics Center, Washington, DC; and the Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, Maryland

Activity restriction and risk of preterm delivery

Heather I. Levin, Anthony Sciscione, Cande V. Ananth, Daphnie Drassinower, Sarah G. Obican & Ronald J. Wapner

To cite this article: Heather I. Levin, Anthony Sciscione, Cande V. Ananth, Daphnie Drassinower, Sarah G. Obican & Ronald J. Wapner (2018) Activity restriction and risk of preterm delivery, The Journal of Maternal-Fetal & Neonatal Medicine, 31:16, 2136-2140, DOI: 10.1080/14767058.2017.1337738

Quantitative assessment of physical activity in pregnant women with sonographic short cervix and the risk for preterm delivery: A prospective pilot study

Roni Zemet[1,2], Eyal Schiff[1,2], Zipora Manovitch[1,2], Tal Cahan[1,2], Rakefet Yoeli-Ullman[1,2], Benny Brandt[1,2], Israel Hendler[1,2], Lilia Dorfman-Margolis[1], Yoav Yinon[1,2], Eyal Sivan[1,2], Shali Mazaki-Tovi[1,2]*

1 Department of Obstetrics and Gynecology, Sheba Medical Center, Tel-Hashomer, Israel, **2** Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel

Effects of exercise during pregnancy in women with short cervix: Secondary analysis from the Italian Pessary Trial in singletons

Gabriele Saccone[a,*], Vincenzo Berghella[b], Roberta Venturella[c], Pietro D'Alessandro[a], Bruno Arduino[a], Antonio Raffone[a], Antonia Giudicepietro[a], Silvia Visentin[d], Amerigo Vitagliano[d], Pasquale Martinelli[a], Fulvio Zullo[a], The Italian Preterm Birth Prevention (IPP) Working Group

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[b] *Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Sidney Kimmel Medical College of Thomas Jefferson University, Philadelphia, PA, USA*
[c] *Department of Obstetrics and Gynecology, School of Medicine, University of Catanzaro Magna Grecia, Catanzaro, Italy*
[d] *Department of Woman's and Child's Health, University of Padua, Padua, Italy*

The Compliance of Prescribed Activity Restriction in Women at High Risk for Preterm Birth

Ghamar Bitar, MD[1] Anthony Sciscione, DO[2]

[1] Department of Obstetrics and Gynecology, Christiana Care Health System, Newark, Delaware
[2] Delaware Center for Maternal Fetal Medicine, Newark, Delaware

Address for correspondence Ghamar Bitar, MD, Department of Obstetrics and Gynecology, Christiana Care Health System, 4755 Ogletown-Stanton Road, Newark, DE 19718 (e-mail: Ghamar.Bitar@christianacare.org).

Am J Perinatol 2022;39:54–60.

RISICI VED AFLASTNING

Risici for mor

- Muskelsvækkelse
- Tab af knogletæthed
- Kredsløbsproblemer
- Øget risiko for depression

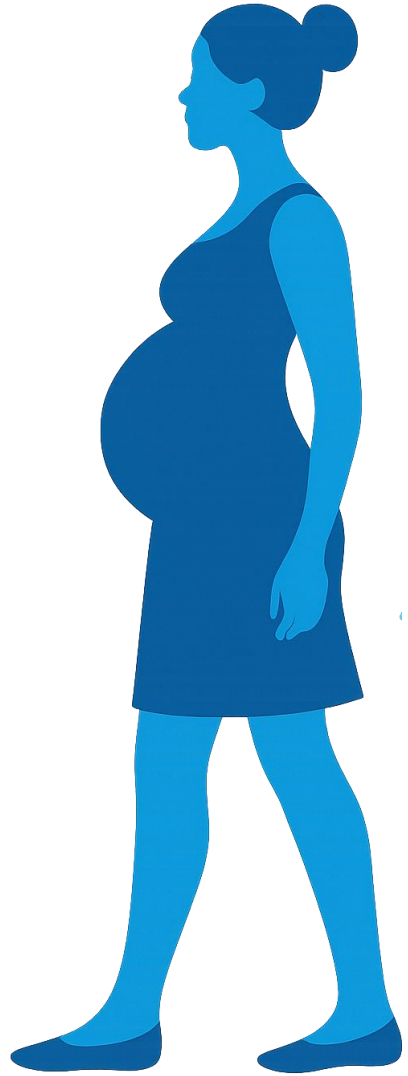
Risici for foster

- Påvirket vækst og udvikling

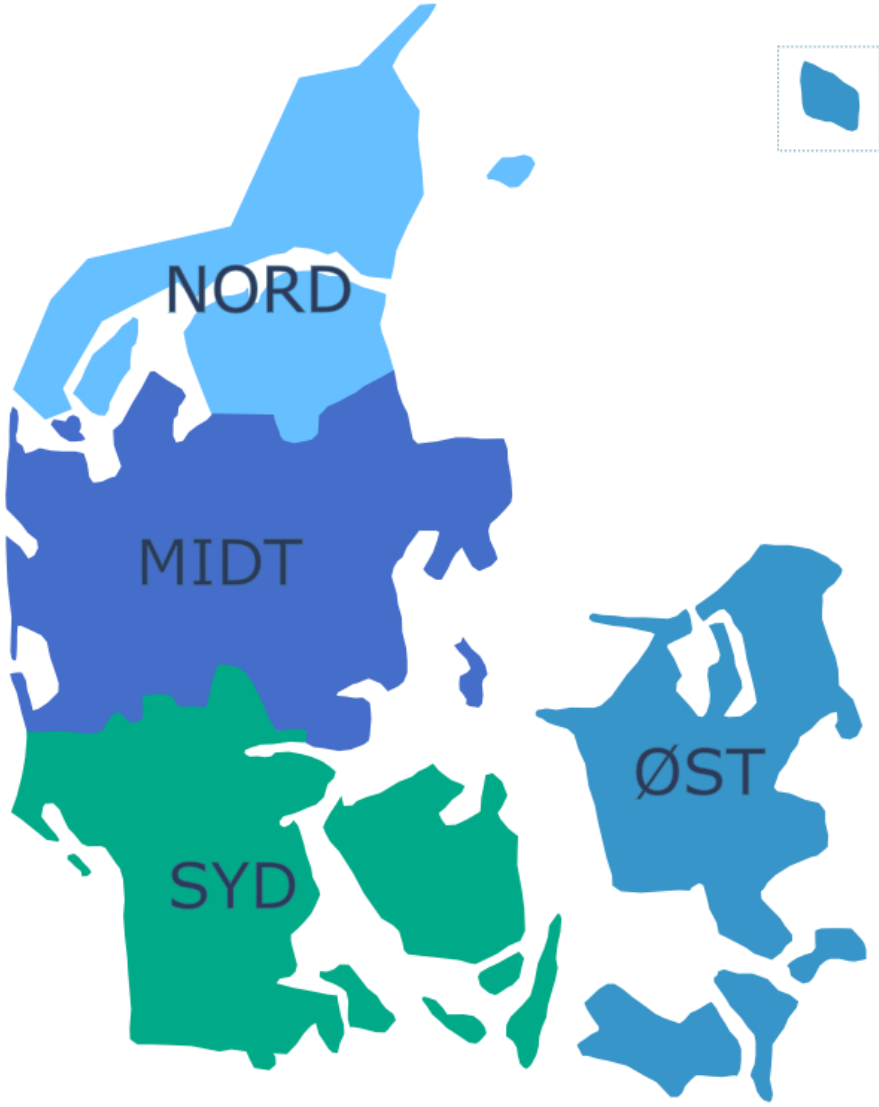
Sciscione AC. Maternal activity restriction and the prevention of preterm birth. American Journal of Obstetrics and Gynecology. 2010;202(3):232.e1-.e5.

FORMÅL MED BEWISE

Er ingen aflastning lige så godt som aflastning til at forlænge graviditeten ved en kort livmoderhals?



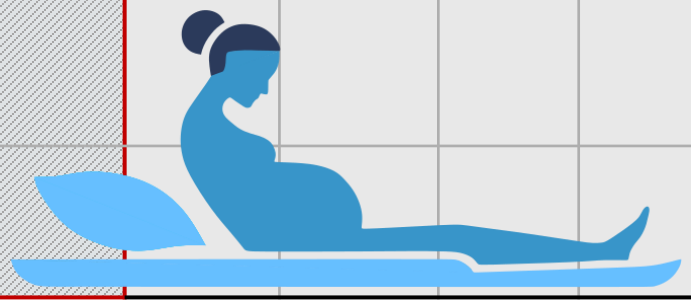
STEPPED WEDGE CLUSTER DESIGN



STEPPED WEDGE CLUSTER DESIGN

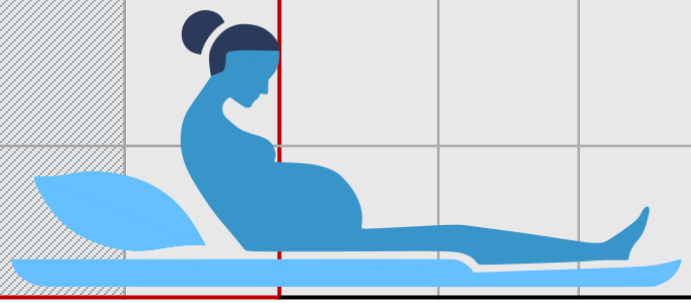
1. Februar 2026

Region	1. år	2. år	3. år	
Region Midt				
Region Syd				
Region Nord				
Region Øst				

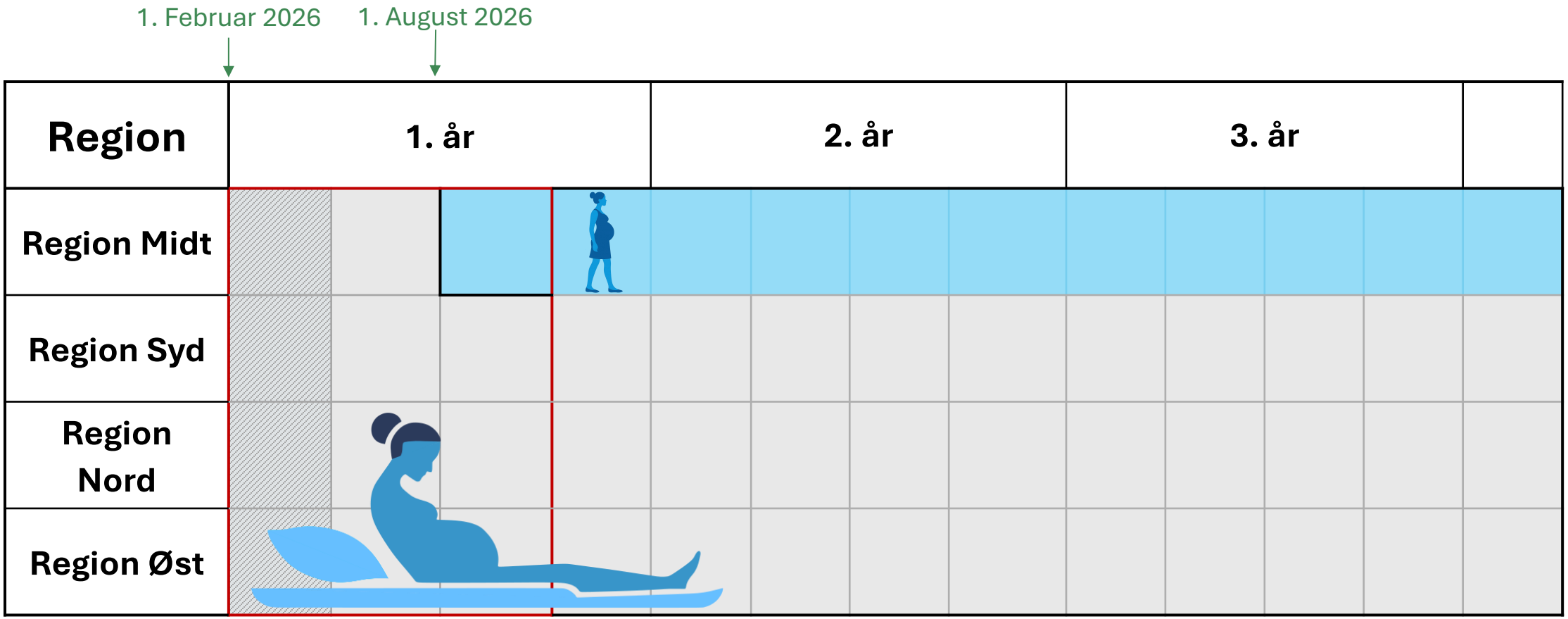


STEPPED WEDGE CLUSTER DESIGN

1. Februar 2026

Region	1. Maj 2026 1. år	2. år	3. år	
Region Midt				
Region Syd				
Region Nord				
Region Øst				

STEPPED WEDGE CLUSTER DESIGN



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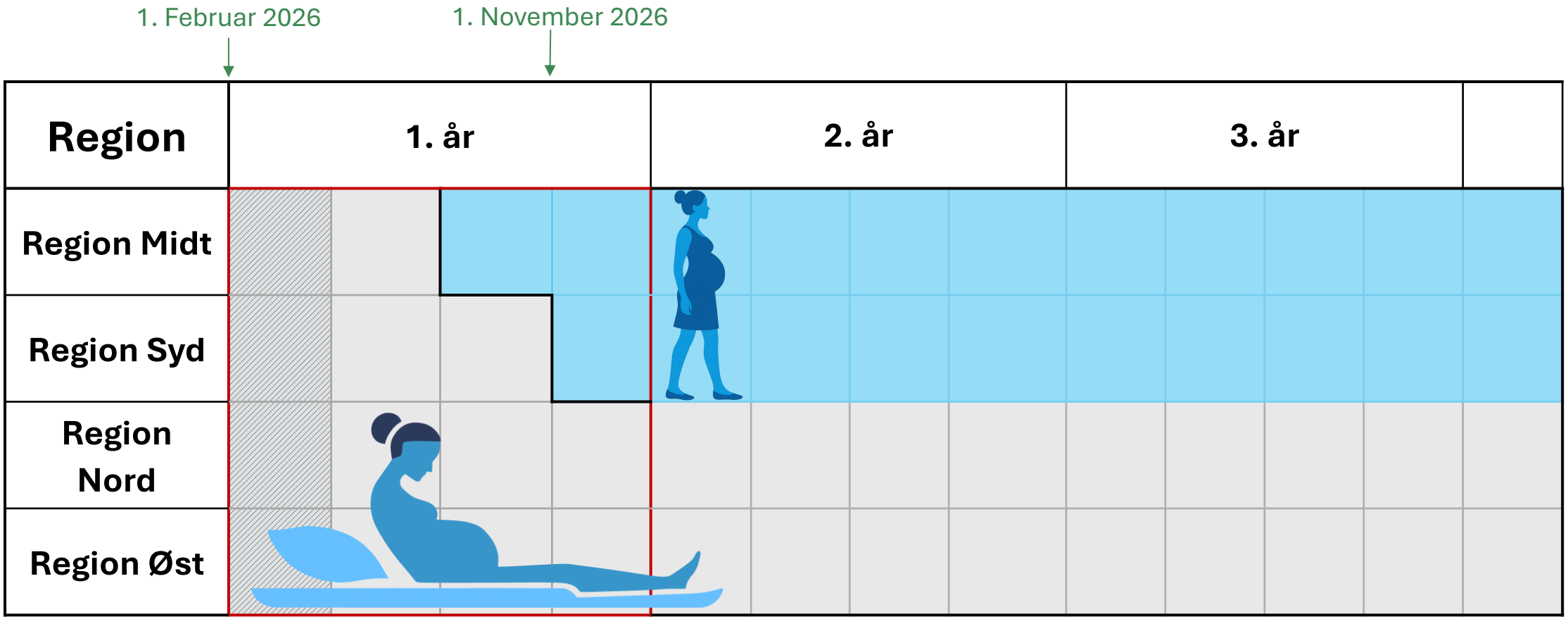

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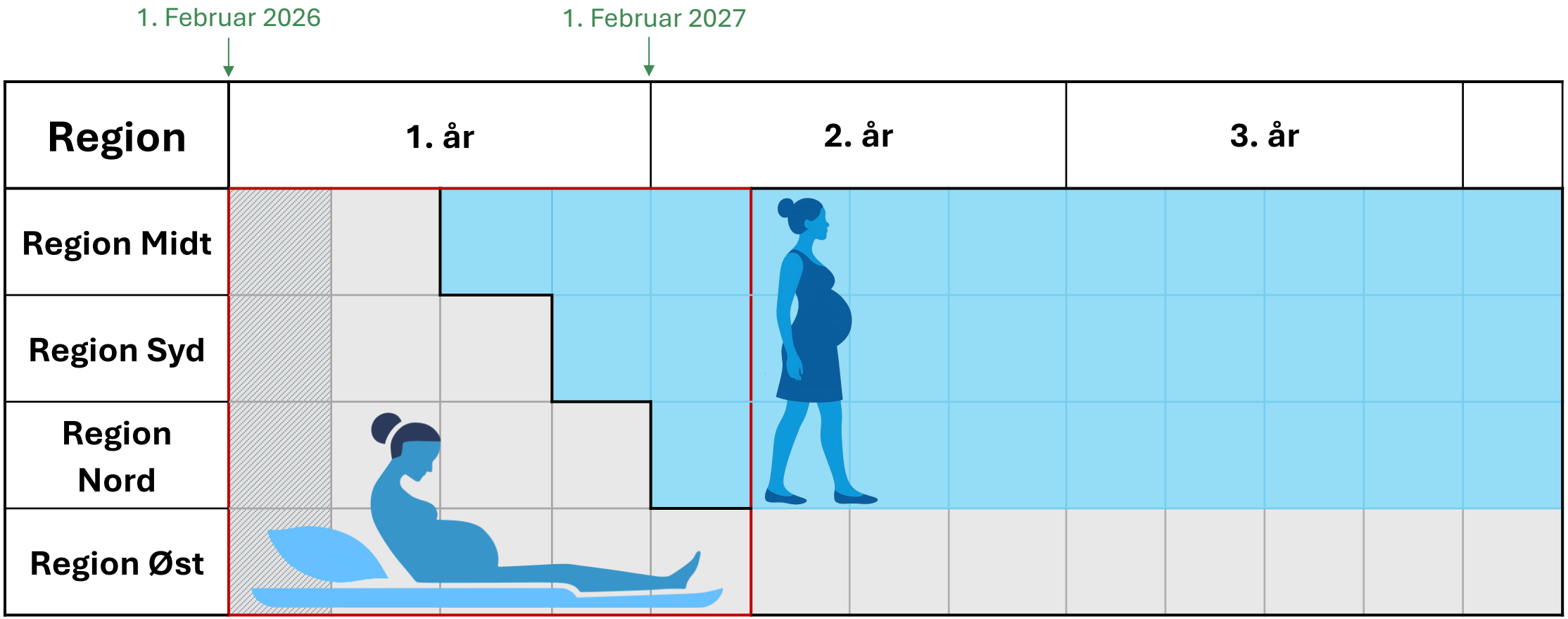

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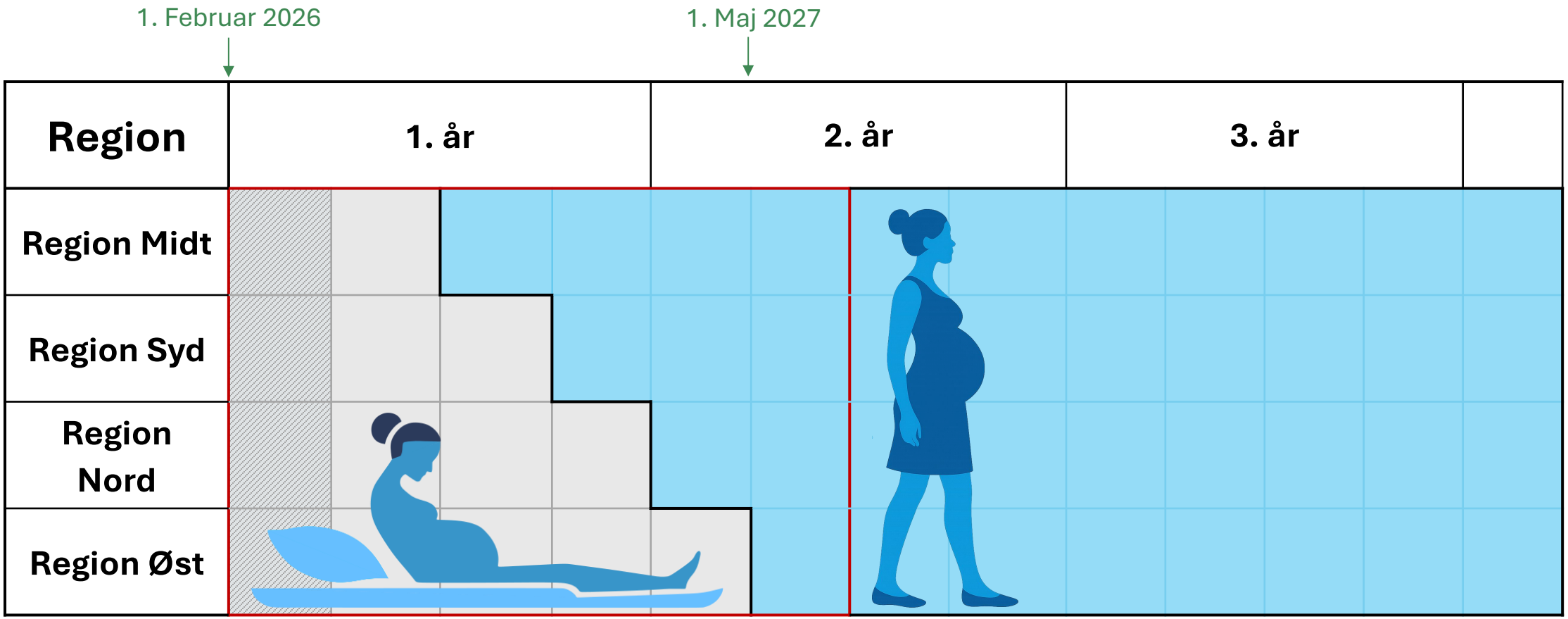

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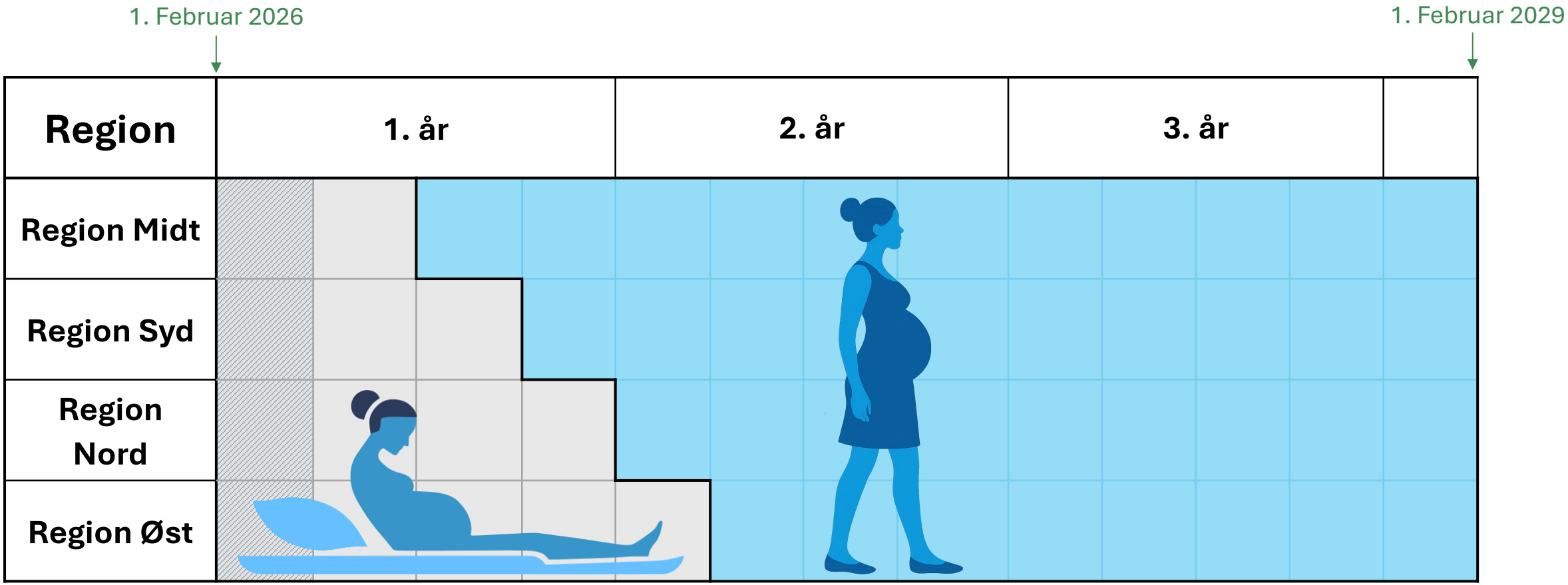
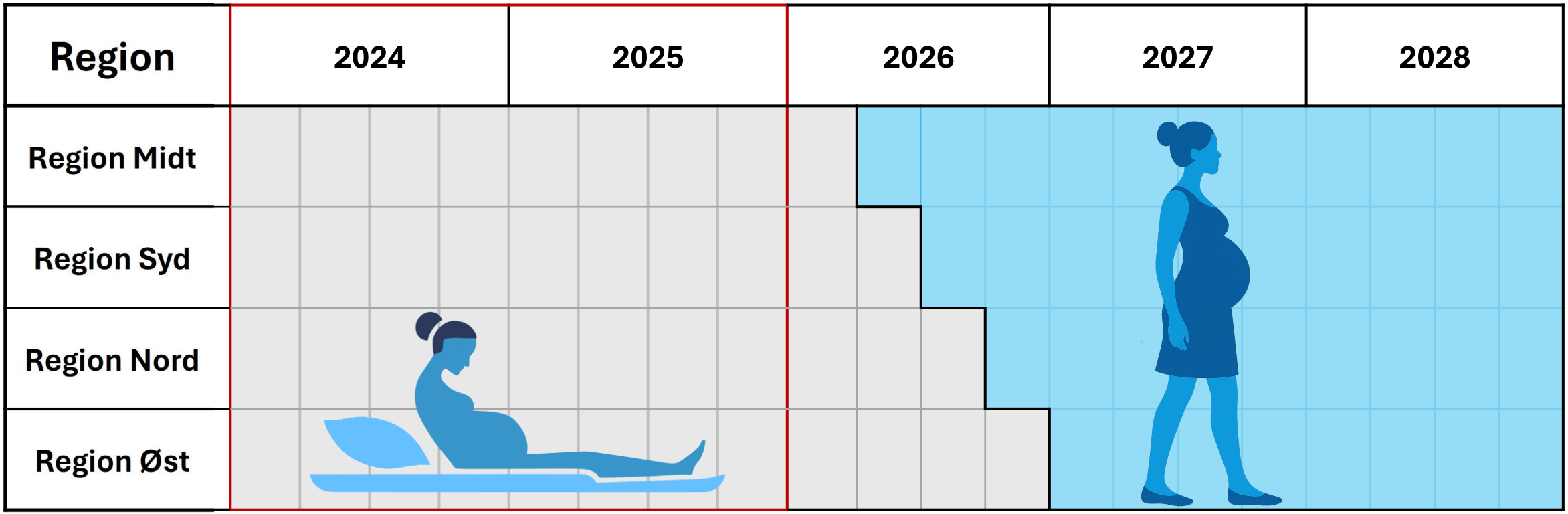


INTERRUPTED TIME-SERIES ANALYSE



HVILKE GRAVIDE?

Inklusionskriterier

- GA 20+0 til 33+6
- Cervix ≤ 25 mm ved singletons og ≤ 30 mm ved flerfold
- > 18 år og kunne læse og forstå dansk eller engelsk

Eksklusionskriterier

- Ingen

OUTCOMES

Primært outcome

- Gestationsalder ved fødsel

Sekundære undersøgelsesparametre

- Præterm fødsel
- Fødselsmåde
- Kvindernes fysiske og mentale helbred
- Neonatale komplikationer

Alle deltagere

Journaldata

Elektronisk depressions-spørgeskema

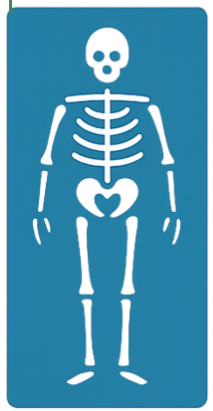
Alle deltagere

Journaldata

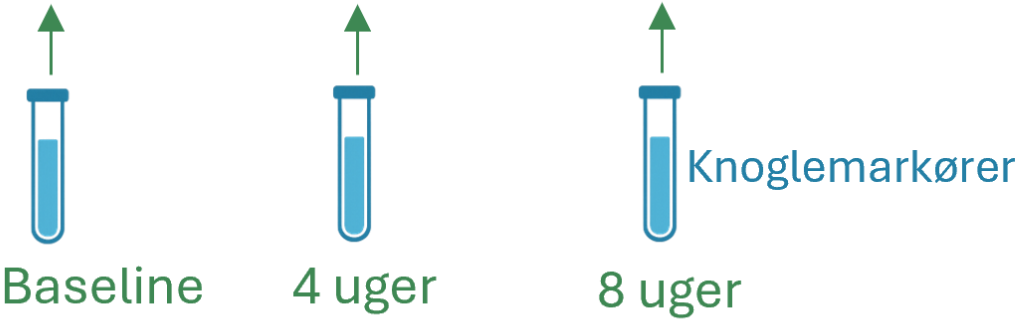
Elektronisk depressions-spørgeskema

Graviditet | Fødsel | 8 uger post partum | 12 måneder efter amning

DXA skanning



140 deltagere



Aktivitetstracker

SPØRGSMÅL?

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BEWISE
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