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among women with a previous pregnancy complicated by gestational diabetes

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# **Development and initial evaluation of** a complex intervention to ensure early detection of type 2 diabetes

- among women with a previous pregnancy complicated by gestational diabetes

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# **INTRODUCTION:**

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Women with pregnancy complicated by gestational diabetes (GDM) are recommended follow-up screening every 1-3 years after birth do to the potentials in early detection of diabetes and health promotion for women and families.

- Women with a history of GDM have a 7-fold higher risk of developing diabetes, primarily type 2 diabetes, compared to women with normoglycemic pregnancies.
- 40 % of women with a history of GDM are found to develop type 2 diabetes within a 10-year period after birth.
- The children are also of high risk of developing type 2 diabetes later in life.
- Early detection of diabetes can prevent or delay the onset of late complications often caused by type 2 diabetes and strengthen \_ health promotions initiatives.
- A register-based study from 2014, showed that only approximately 18% of women in the Region of North Jutland participated in the recommended follow-up screening 4-6 years after birth.

The unutilized potentials in early detection, prevention and health promotion of young women and their families, emphasizes the importance of development of an intervention with the purpose of increasing participation in the recommended follow-up screening. This is the overall objective of this PhD project.

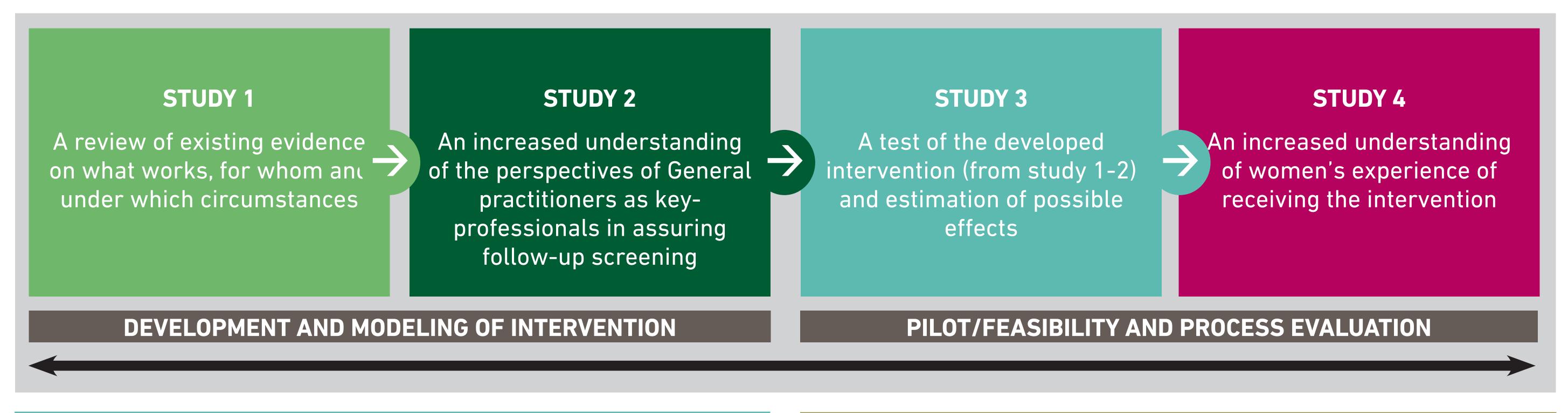
## FEASIBILITY AND PILOTING **METHODS AND DESIGN:** Testing procedures Estimating recruitment and retention Determining sample size An intervention study based on the English Medical Research DEVELOPMENT **EVALUATION** Council's (MRC) framework for development and evaluation of Identifying the evidence base Assessing effectiveness

complex interventions in public health.

This PhD project focus on the development (study 1-2) and pilot/feasibility (study 3-4), drawing on both qualitative and quantitative methods. Final, evaluation and implementation are beyond this PhD project.



Medical research Council. The development - evaluation - implementation process new guidance



# **IMPLICATION FOR PRACTICE:**

# **RESEARCH/PRACTICE COLLABORATION:**

This constitute the first steps of developing a theoretically sound, contextualized and well-adapted intervention that has the potential to be effective in a Danish setting. This could improve cross-sectional care for this specific group of women in high risk and create more healthier living years beneficial for both the women, families and communities in general.

Main Supervisor: Charlotte Overgaard, Associate Professor. The Public Health and Epidemiology group, Department of Health Science and Technology, Aalborg University. **Co-supervisor:** Erik Elgaard Sørensen, Professor. Clinical Nursing Research unit, Aalborg University Hospital, Aalborg University.

Collaboration with Aalborg University Hospital provides professional expertise and cooperation of the care and treatment.

Collaboration with the public administration, Region of North Jutland provides knowledge on hospital systems and are supportive of the execution of the intervention.

Affiliations of the project has been granted at DECIPH'er, Cardiff University which ensures expert methodological advice on complex intervention.

