

Supplementary Material 4: Study characteristics

Study Author, year.	Study type, method for data collection and analysis	Participant characteristics and sample size	Phenomena of interest	Setting/Context/Culture	Country
Aw-Nuur et al. (2024)	Semi-structured interviews Qualitative Content Analysis	10 women of childbearing age Age: 25-30 (n=3), 30-35 (n=6), 35+ (n=1) Ethnicity: of Somali origin. Socioeconomic status: 8 educated to upper secondary school level, 2 Higher Education. Pregnancy status: All participants had children, but future intentions not indicated.	- Knowledge of and experiences with folic acid supplement use before and during pregnancy. - Factors that explain folic acid uptake amongst Somali immigrant women	Somali immigrant women. Participants recruited through Somali community in Western Norway	Norway
Alamer et al. (2022)	Phenomenological qualitative approach In-depth interviews Thematic Analysis	10 Primary Health Care Physicians Gender: Male (n=4), Female (n=6) Age (range): 31-57 Professions: GPs (n=4), Senior Registrar (family medicine) n=2, Registrar (family medicine) n=1 Consultants (n=3)	- Knowledge, attitudes and practice of preconception health - Barriers to delivery of preconception health. - Perceptions and approaches to pre-conception health.	Primary Health Care (Riyadh)	Saudi Arabia
AlWatban et al. (2023)	Face-face semi-structured interviews Thematic analysis	9 women of childbearing age Age (range): 18-46 Ethnicity: Saudi nationality Socioeconomic status: 7 educated to Bachelor's degree, 2 to High School Diploma Pregnancy status: Not reported	- Patients' experiences and perspectives around pre-conception health & care - Patients' experiences of accessing preconception health and care	Primary Health Care (Riyadh)	Saudi Arabia
Balogh (2019)	Qualitative phenomenology Semi-structured face to face interviews & case descriptions. Thematic content analysis.	9 women of childbearing age Age: 18-39 Health condition: Either overweight or obese classified by BMI status of over 25 Women with intention to become pregnant in next year Ethnicity: Black (n=6), Mexican American (n=1), Mexican (n=1), White (n=1) Socioeconomic status: 7 full time employed, 2 unemployed. Pregnancy status: Not reported	- Understanding ways in which overweight women describe a healthy pregnancy from the preconception stages and the experiences that led them to those beliefs - The meaning of preconception health to overweight women intending to become pregnant	North Carolina County Economically impoverished area.	United States
Benton et al. (2020)	Semi-structured interviews	12 women of childbearing age Age (range): 32-43 Ethnicity: Not reported	Perspectives of barriers, enablers and strategies for addressing overweight and obesity before conception	Conducted in three publicly funded	Australia

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	Face to Face and telephone Thematic analysis	Health condition: Self-identified as overweight or obese. Socioeconomic status: Even distribution across the quintiles of social disadvantage. Pregnancy status: All had given birth to at least one child prior to study. 10 not planning a future pregnancy at time of study, one currently pregnant and one unsure on planning pregnancy.		hospitals in Adelaide, South Australia	
Britton et al. (2023)	Semi-structured interviews by telephone Content Analysis	32 women of childbearing age Age (range): 21-40 (mean 33) Ethnicity: Black/African-American/of African origin (n=20), Latina/Latinx/Hispanic (n=7), Black Latina (n=5) Health Condition(s): Type 2 diabetes. Socioeconomic status: Not reported Pregnancy status: 13 never pregnant, 18 parenting a biological child and 1 pregnant.	Perspectives, experiences, needs and preferences regarding PCH&C patient education	New York, New Jersey and Connecticut	United States
Budds et al. (2024)	Qualitative survey with open ended questions Thematic Analysis	197 women of childbearing age. Age (range): 20-40 (largest proportion 25-39) Ethnicity: White British (n=163), Asian Muslim (n=2), Black (n=1), British Muslim (n=1), Indian (n=1), Jewish (n=3), Latina (n=1), Mixed Race (n=8), White Other (n=4) Socioeconomic status: Predominantly working and middle class. Pregnancy status: Women who self-defined as currently trying to conceive (n=62) and pregnant women (n=135).	How women respond to and are impacted by preconception health messages as they try to conceive a baby	Cisgender women trying to conceive or recently pregnant reflecting on preconception experiences	United Kingdom
Clark & Mager. (2022)	Semi-structured interviews in person, telephone and video call	19 women of childbearing age Age (range): 20-44, 20-24 (n=4), 25-34 (n=9), 35-44 (n=6) Ethnicity: White (n=18), Black (n=1) Socioeconomic status: Graduated to college level (n=6), High school (n=4) and have 'some college' education (n=9)	What women perceive to be their most pressing health needs and effective ways to provide outreach and education regarding preconception/interconception health and care	Rural Midwest, Hardin County, Ohio.	United States

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		Pregnancy status: No children (n=6), 1 or 2 (n=8), 3 or more (n=5).			
Caut et al. (2025b)	Online semi-structured interviews and focus groups Thematic Analysis	18 Healthcare Professionals Professions: GPs (n=6), Midwives (n=5), Naturopaths (n=7) Ages: Not reported Employed in clinical practice for at least five years	The beliefs and attitudes towards preconception health and preconception practices amongst healthcare professionals	Australian Primary Care Settings Primary Health Care professionals	Australia
Daly et al. (2024a)	Semi-structured telephone interviews Framework Analysis	20 Women of childbearing age Age (range): 18-48 (predominantly aged 25-39) Ethnicity: White (n=15), Mixed/Multiple Ethnic Group (n=1), Asian/Asian British (n=1), Black/African/Caribbean/Black British (n=2), Other Ethnic Group (n=1) Socioeconomic status: 55% University educated. 45% had household income below £32,000. Pregnancy status: 10 previously pregnant, 10 never pregnant 13 either currently trying to conceive or would like to conceive in next 3 years. 6 unsure. 1 not desired.	Reproductive-aged women's views on content and delivery methods for preconception health interventions	Registered with one of seven general practices in the West of England. Healthcare and community-based settings	UK
Daly et al. (2025)	Semi-structured telephone interview Framework Analysis	20 women of childbearing age Age: 18-48 (predominantly aged 25-39) Ethnicity: White (n=15), Mixed/Multiple Ethnic Group (n=1), Asian/Asian British (n=1), Black/African/Caribbean/Black British (n=2), Other Ethnic Group (n=1) Socioeconomic status: 55% university educated. 45% had household income below £32,000 similar to UK population Pregnancy status: 10 previously pregnant, 10 never pregnant. 13 either currently trying to conceive or would like to conceive in next 3 years, 6 unsure, 1 not desired.	Women's views on the types of support required for preconception health improvement, when and to whom Preconception Health should be provided	Primary care centres in the West of England Healthcare and community-based settings	UK
Dorney et al. (2025)	In-depth semi-structured interviews (online) Thematical analysis	20 women of childbearing age Age (range): 19-40 (Median age 29.5) Ethnicity: Not reported	Understanding of preconception health amongst people of reproductive age in Australia.	PCH&C is provided opportunistically not routinely in Australia.	Australia

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		Socioeconomic status: Participants resided in metropolitan, rural and remote locations. 8 from most disadvantaged quintiles and 9 from most advantaged. 3 had Secondary education, 1 Vocational and 16 Tertiary. Pregnancy status: Parent (n=11), Previous pregnancy (n=14), Currently pregnant (n=1), planning a pregnancy in the next year (n=9)	People's understanding, knowledge and perception of the importance of preconception health		
Dyer et al. (2024)	Semi-structured interviews Thematic Analysis	18 Healthcare professionals. Professions: General Practitioners (n =3), Diabetes Consultant (n=4), Midwife (n=3), Diabetes Specialist Midwife (n=1), Childbirth and Pregnancy Loss Specialist Midwife (n=1), Diabetes Specialist Nurse (n=3), Obstetrician (n=1), Clinical psychologist (n=1), Diabetes dietician (n=1) Gender: 16 women, 2 men Ethnicity: White (n=17), Asian/Asian British (n=1).	- Perspectives on improving inter-pregnancy care for women with diabetes after baby loss. - Inter-pregnancy and preconception care - Women with Diabetes (Type 1 and 2)	Healthcare professionals from Northeast England (n=9), London (n=2), West Midlands (n=1), East Midlands (n=1), Yorkshire and Humber (n=1), Southeast England (n=1), Wales (n=1), Northern Ireland (n=1), Ireland (n=1)	United Kingdom
Forde et al. (2020)	Semi-structured interviews (face-face and telephone) Thematic and Framework Analysis	30 women of childbearing age and 22 Healthcare professionals. <u>Women:</u> Age (range): 25-44 (mean = 37) Ethnicity: Asian (n=8), Black (n=16), White (n=6) Socioeconomic status: (IMD 1-5 used, least to most: IMD5 (7), IMD4 (14), IMD3 (6), IMD2 (3). 75% lived in areas of high deprivation. Health conditions: Type 2 Diabetes. 17 managed in Primary care, 13 in Secondary. (BMI average, 34.9). Pregnancy status: Pregnant (n=8), no contraception (n=14), contraception (n=8) <u>Healthcare Professionals:</u> GPs (n=6), Practice Nurses (n=8), Diabetes Specialist Nurses (n=8)	- Views and experiences of women with Type 2 Diabetes and Healthcare Professionals relating to pre-pregnancy care received or provided - Understanding of pre-pregnancy health and care, awareness of and/or access to pre-pregnancy care - Perceptions of the barriers to accessing/delivering pre-pregnancy health and care	Two south London boroughs with high levels of ethnic diversity and socio-economic deprivation.	United Kingdom

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Forde et al. (2021)	Semi-structured interviews (face-face and telephone) Thematic and Framework Analysis	30 women of childbearing age and 22 Healthcare Professionals <u>Women:</u> Age (range): 25-44 (mean = 37) Ethnicity: Asian (n=8), Black (n=16), White (n=6) Socioeconomic status: (IMD 1-5 used, least to most: IMD5 (7), IMD4 (14), IMD3 (6), IMD2 (3). 19 had no exposure to pre-pregnancy care. 11 had. Pregnancy status: Pregnant (n=8), No contraception (n=14), contraception (n=8). <u>Healthcare Professionals:</u> GPs (n=6), Practice Nurses (n=8), Diabetes Specialist Nurses (n=6), Diabetologists (n=2).	• Pre-pregnancy care amongst women with T2DM • Strategies from women with T2DM and HCPs that address barriers experienced in relation to pre-pregnancy care • Suggestions to increase uptake, including awareness of and/or access to PCH&C • Views of HCPs on how to enhance provision and access to pre-pregnancy health interventions for women with T2DM	Primary and Secondary care settings Two South London Boroughs	United Kingdom
Garcia et al. (2018)	Focus group discussions and semi-structured interviews Thematically Analysed through Framework Analysis	52 women of childbearing age and 24 Health care professionals <u>Women:</u> Age (range): 23-49 Ethnicity: White British (n=10), Pakistani (n=20), Bangladeshi (n=16) 46 women with normal birth outcomes 6 women who had suffered a perinatal mortality. Socioeconomic status: Range of education levels from GCSE to MBA. Pregnancy status: One sample of those previously delivered a live born baby in preceding 6 to 24 months and one with women who had suffered a perinatal mortality in the preceding 6 to 24 months. <u>Healthcare Professionals:</u> Community midwives (n=19), Hospital Midwives (n=2), Health Visitor (n=1), Practice Nurse (n=1), GP (n=1)	• Folic acid consumption, preconception health behaviours barriers and facilitators • Health beliefs, attitudes, knowledge and perceptions and health behaviour regarding consumption of folic acid preconception	Luton – town with high rates of deprivation Children’s Centres Both English speaking and non-English speaking mothers	United Kingdom
Hall et al. (2024)	One-one interviews involving role play scenarios and ranking exercises	13 women of childbearing age. Age (range): 15-48 Ethnicity: White British (n=9), Asian, (n=1), Mixed, (n=1), Black British (n=1), Other (n=1). Pregnancy status: Not reported	• Women’s views on the acceptability of specific questions about pregnancy preferences when asked by healthcare professionals in a variety of primary care contexts	Primary Care Settings Participants were from London (n=5), Midlands (n=4), South East (n=1), North East	United Kingdom

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	Thematic framework analysis	Socioeconomic status: Not reported	• Preconception and reproductive health	(n=1), South West (n=1), Scotland (n=1)	
Holton et al. (2018)	Online discussion groups Thematically analysed	13 women of childbearing age Age (range): 22-43 (mean = 30.8) Ethnicity: Not reported Health Condition: Poly Cystic Ovary Syndrome (self-reported) Socioeconomic status: Over 50% lived in an area of socioeconomic disadvantage Pregnancy status: 9 had tried to get pregnant, 4 had not.	• Fertility and childbearing concerns and related information needs and preferences of women with poly-cystic ovary syndrome (PCOS) • Preconception health and care	Women with a self-reported diagnosis of PCOS living in Australia, English speaking.	Australia
Hristova-Antanasova et al. (2023)	Focus groups Thematically analysed	20 women of childbearing age Age (range): 22-38 (mean = 28.3) Ethnicity: Not reported Socioeconomic status: 80% had a Master's degree, 50% employed. Pregnancy status: 9 never pregnant, 1 pregnant at time of study and 10 postpartum.	• Preconception health related attitudes and experiences of Bulgarian women of reproductive age	Study setting: Plovdiv, second largest metropolis in Bulgaria.	Bulgaria
Jenkinson et al. (2025)	Semi-structured interviews Thematic analysis	38 women of childbearing age Age (range): 18-49, with most in their 30s (76%) Ethnicity: Not reported Socioeconomic status: 16 participants from the most deprived areas, 9 from least and 12 between both. Pregnancy status: Pregnant in last two years (n=12), currently pregnant (n=19), currently trying to conceive (n=10) and a future pregnancy is anticipated (n=4).	• Women's perceptions of the needs for preconception health and care and the factors influencing these perceptions	Participants from across Australia. Healthcare system in Australia: GP's main providers of PCH&C. Access is uneven especially in rural and remote areas.	Australia
Khan et al. (2019)	Semi-structured interviews (telephone and video). Thematically analysed	15 women of childbearing age. Age (range): 31-36, (median= 33). Ethnicity: Not reported. Socio economic status: 12 employed full time, 3 part time. 13 had a bachelor's degree or higher. Pregnancy Status: Planning to conceive in next 12 months (n=7), currently pregnant (n=7), postpartum (n=1).	• Preconception health attitudes, behaviours and information preferences. • Attitudes to preconception health including areas of importance, support sources, enablers and barriers, behaviours and information preferences	Participants from across Australia.	Australia

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Lang et al. (2020)	Semi-structured interviews and focus groups. Content and thematic analysis	25 women of childbearing age. Age (range): 16-48 (mean = 30) Ethnicity: Not reported Socioeconomic status: Majority classified as having a middle to high socio-economic status according to their postcode and corresponding income deciles. Pregnancy status: had children (n=12) not have children (n=13).	• Pregnancy planning, preconception lifestyles, awareness, experiences and healthcare needs of migrant women in Australia. • Experiences and perspectives on preconception health and care.	Melbourne Australia. Participants were from migrant and refugee backgrounds: Afghanistan (n=10), Ethiopia (n=2), India (n=2), Pakistan (n=2), Sri Lanka (n=2), Other (n=7).	Australia
M'Hamdi et al. (2018)	Semi-structured interviews Thematic content analysis	28 women of childbearing age. Age (range): 21-41 Two sub-groups: 13 had received preconception care in past, 15 had not. Ethnicity: Not reported Socioeconomic status: Attained or were currently attaining an intermediate education (n= 24), not in employment (n=13). Pregnancy status: Not reported	• Perceptions of women with low socioeconomic status of pregnancy preparation and the roles they attribute to healthcare professionals. • Barriers and facilitators regarding pregnancy preparation	Women with low to intermediate education attainment.	Netherland s
McGowan et al. (2020)	Focus group discussions Thematic analysis	13 women of childbearing age. Age (range): 18-45 (predominantly aged between 18-25) Ethnicity: Not reported Socioeconomic status: Most participants had undergraduate degree or above. All but one employed or in full time higher education. Pregnancy status: Not reported	• Preconception health views, beliefs, knowledge and attitudes amongst adults of childbearing age	Rural and urban locations Northern Ireland	United Kingdom
Molinaro et al. (2021)	One-one semi structured interviews Thematic Analysis	23 Health Care Professionals Professions: Obstetricians/Gynaecologists (n=4), Family Physicians (n=4), Midwives (n=4), Endocrinologists (n=2), Internal Medicine Generalists (n=2), Maternal Foetal Specialists (n=4), Paediatricians (n=4)	• Exploration of if and how health care providers counsel on preconception health and future health outcomes with parents both preconception and during pregnancy • How preconception health can be integrated into clinical practice • Factors influencing counselling around preconception health to patients	Ontario Developmental Origins of Health and Disease model used as primary phenomena of interest which underpins preconception health and care	Canada

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Nacev et al. (2022)	Semi-structured interviews in person and via telephone Content analysis	20 Health care providers Professions: Family Medicine Physicians (n=8), OBGYNs (n=4), Nurse Practitioners (n=7), Nurse midwife (n=1) Age: (mean = 46) Gender: Women (n=17), Men (n=3) Ethnicity: Not reported	- Factors influencing behaviour of healthcare providers around preconception health in outpatient clinical settings - Preconception health and care beliefs and practices	United States - Wisconsin Health Care Professionals worked in diverse settings including private practice, federally qualified health centres/rural health centres, Public Health Clinics and Family Planning Clinics.	United States
Nwolise et al. (2020)	Focus groups and interviews Thematic analysis	Women of childbearing age and Health care providers. <u>Women:</u> 10 Women of childbearing age with Type 1 or Type 2 diabetes Age (range): 22-43 (mean = 34 years) Ethnicity: Not reported Pregnancy status: received PCC from clinicians prior to study (n=5). Reported unplanned pregnancy (n=3), reported two miscarriages (n=1). Health condition(s): T1DM (n=9) and T2DM (n=1). <u>Healthcare Professionals</u> 9 Healthcare providers Professions: Nurses (diabetes specialist and research nurses) (n=6), Doctors (n=3) – obstetrician, gynaecologist and endocrinologist. 7 worked in hospital settings and 2 in General Practice	Views and experiences of clinicians and women of childbearing age with Diabetes regarding preconception health and care and the use of a mobile app for engagement.	Women were from across the UK and Republic of Ireland: Scotland (n=1), England (n=4), Ireland (n=1), Northern Ireland (n=1), Wales (n=1)	United Kingdom
Ragnar et al. (2018)	Semi-structured focus group interviews Content analysis	17 adolescents of childbearing age Age: 16-18 (mean = 17.6) Pregnancy status: Most participants desired to have children in the future. Socio-economic status: Upper secondary school students	- Adolescent beliefs and awareness regarding fertility and preconception health - Views and experience of information about fertility and preconception health	Upper Secondary school students	Sweden

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Quayyum et al. (2021)	Online interviews Thematic analysis	14 women of childbearing age Age (range): 10 between 18-20 and 4 between 21-25. Ethnicity: Not reported Socio-economic status: Ranged from high school diploma to Bachelor's degree. Lived in rural areas (n=3) and Urban (n=11). Pregnancy status: Not reported 7 women in a relationship and 7 single at the time of study.	- Barriers to nutritional preparation for pregnancy and perceived support needs of women - Preconception health knowledge & beliefs - Barriers to specific preconception health behaviours.	New Brunswick - Canada.	Canada
Schoenaker et al. (2024)	Online discussion meetings (group and one to one). Thematic synthesis	50 women of childbearing age Age (range): 18-49 (mean between 18-30). Ethnicity: Not reported Socio-economic status: Not reported authors state: " <i>diverse groups in terms of ethnic background, having children already or not, physical/mental health condition and varying pregnancy intentions</i> ". Pregnancy status: One third of participants reflected on being a parent or mentioned they had children.	- Knowledge of preconception health and language used around the concept - Preferred/acceptable public health approaches to PCH - Perspectives, thoughts, views and interpretations of PCH as a term - Facilitators to raising awareness and suitable language to discuss and communicate preconception health	Participants were from across all 4 UK nations.	United Kingdom
Silverio et al. (2023)	Virtual focus groups Thematically analysed	11 Health care professionals Professions: Community pharmacists (n=11) Gender: Male (n=3), Female (n=8) Ethnicity: Not reported Age: Not reported	Practices and attitudes towards the provision of healthcare advice regarding preconception and pregnancy amongst community pharmacists	Urban areas of London	United Kingdom
Walker et al. (2021)	Semi-structured interviews and focus groups Thematically analysed	14 women of childbearing age and 20 health care professionals <u>Women:</u> Age (range): 24-41 (mean = 34) Ethnicity: Not reported Socioeconomic status: Not reported Pregnancy status: never given birth (n=10), given birth (n=4). <u>Health care professionals:</u> Profession: Practice nurse (n=8), GP (n=10), Practice manager (n=2)	Exploring women's and health professional's perspectives of preconception health and care and lifestyle advice provided in primary care	Australia – Victoria Primary care setting	Australia

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		Gender: Female (n=12), Male (n=8) Ethnicity: Not reported			
Walker et al. (2020)	Focus Groups Thematical analysis	31 women of childbearing age. Age (range): 18-43 Ethnicity: Not reported Socioeconomic status: Not reported Pregnancy status: All participants were not pregnant during study.	• Women's views of promoting preconception health and increasing awareness and uptake of healthy lifestyle behaviours during the preconception period • Considerations for future planning and development of interventions to engage women in preventive actions to optimise their preconception health	Participants interacted with a computerised preconception care tool called 'Gabby'.	Australia
Walker et al. (2022)	In-depth interviews Thematic analysis	12 women of childbearing age Age (ranges): 18-45 (median = 31.5) Ethnicity: Not reported Socioeconomic status: 10 University educated. Pregnancy status: Intended to become pregnant in the next two years or who had a child in past 2 years (n=6). Not planning a pregnancy in next two years and did not have children (n=6)	• Women's understanding of health and health behaviours preconception and what support is important to promote behaviour change in the preconception period	Victoria – Australia. COM-B model used to frame the analysis and findings.	Australia