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Health Research Board

The Silent Morbidities: Early Results of the MAMMI study

(**M**aternal health **A**nd **M**aternal **M**orbidity in **I**reland)

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The MAMMI Study

Maternal health **A**nd **M**aternal **M**orbidity in **I**reland

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- **Sincerest thanks to**
  - The women who are taking part
  - The midwives and midwifery students who circulate information
  - The Rotunda Hospital for their collaboration
  - The team members:

  Margaret Carroll (MAMMI 2), **Deirdre O'Malley** (sexual health), **Francesca Wuytack** (pelvic girdle pain)

  - **Rebekah Maguire** and **Sophie Clare** who worked with us on the MAMMI study summer 2012 and **Eleanor Russell** and **Marie O'Shea** who are working with us April-June 2013

  - The Health Research Board (**HRB**) for funding the MAMMI study (UI strand) and MAMMI 2, commencing soon in Galway).

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Context (1)

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- There are **no publically available data** on maternal health and health problems **following discharge** from the maternity hospitals in Ireland

- Women's **attendances at health services** or **readmissions** to hospitals **are not linked** to their maternity records (i.e. there is **no connectivity** between their records)

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Context (2)

Health Research Board

- A **confidential enquiry into maternal deaths** commenced in 2009
- Data collection on **severe maternal morbidity** commenced in 2011
- A **national maternity record** (computerised in all hospitals) **is planned**

However

- **General health morbidities** (incontinence, perineal pain, and sexual health problems) are **not** captured therefore **the MAMMI study is timely** and **may identify risk factors** for morbidities that may be **amenable to intervention**

The MAMMI Study

Maternal health **A**nd **M**aternal **M**orbidity in **I**reland

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HRB Health Research Board

- **Aim and objectives of MAMMI study**
- **Brief overview of study methodology**
- **Preliminary findings**

  (from women recruited up to March 2013, n=725)
- **Key points and future work**

The MAMMI Study

Maternal health **A**nd **M**aternal **M**orbidity in **I**reland

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HRB Health Research Board

- **Aim and objectives of MAMMI study**
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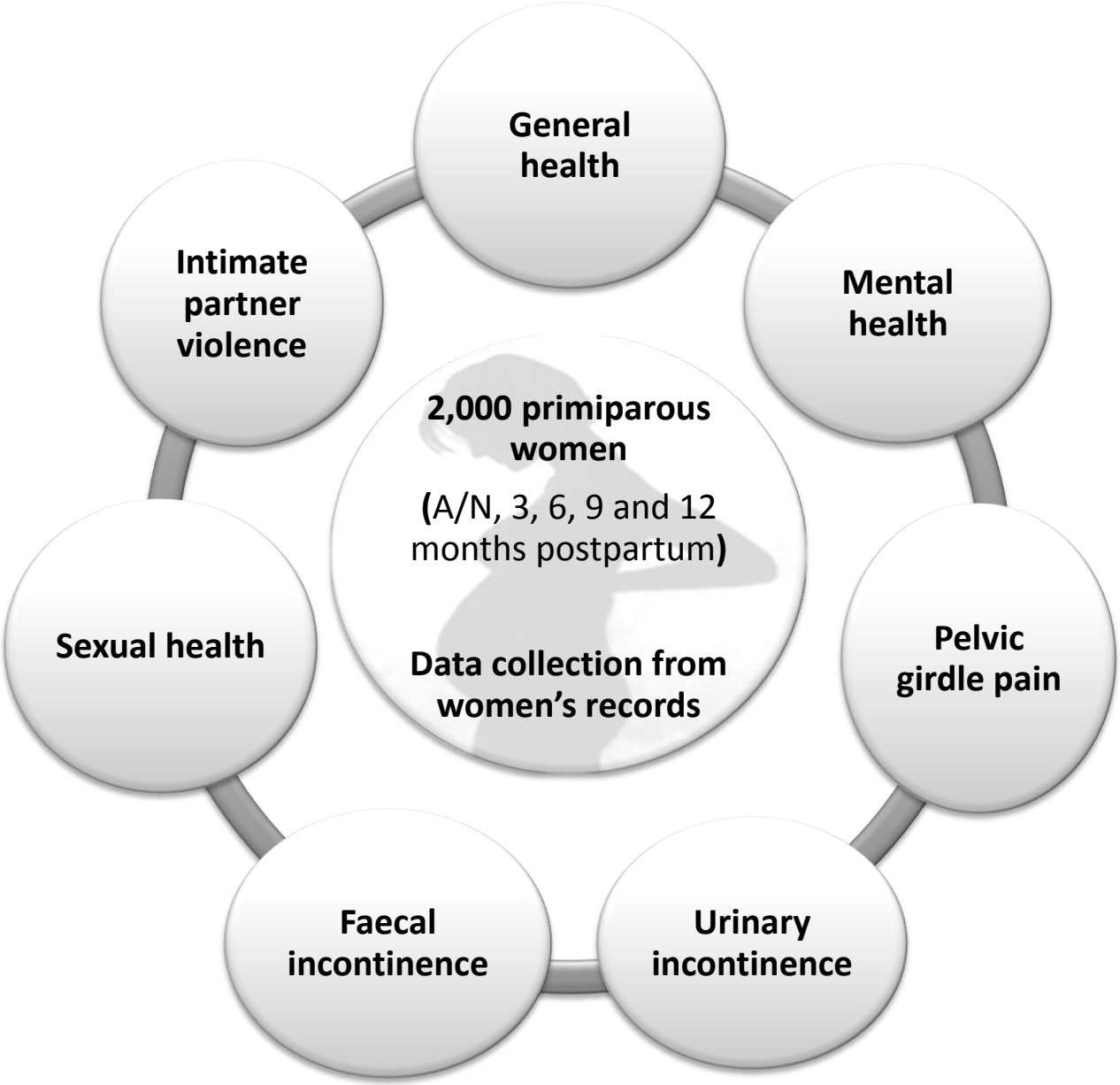
- **Preliminary findings**

  (from women recruited up to March 2013, n=725)
- **Key points and future work**

The MAMMI Study



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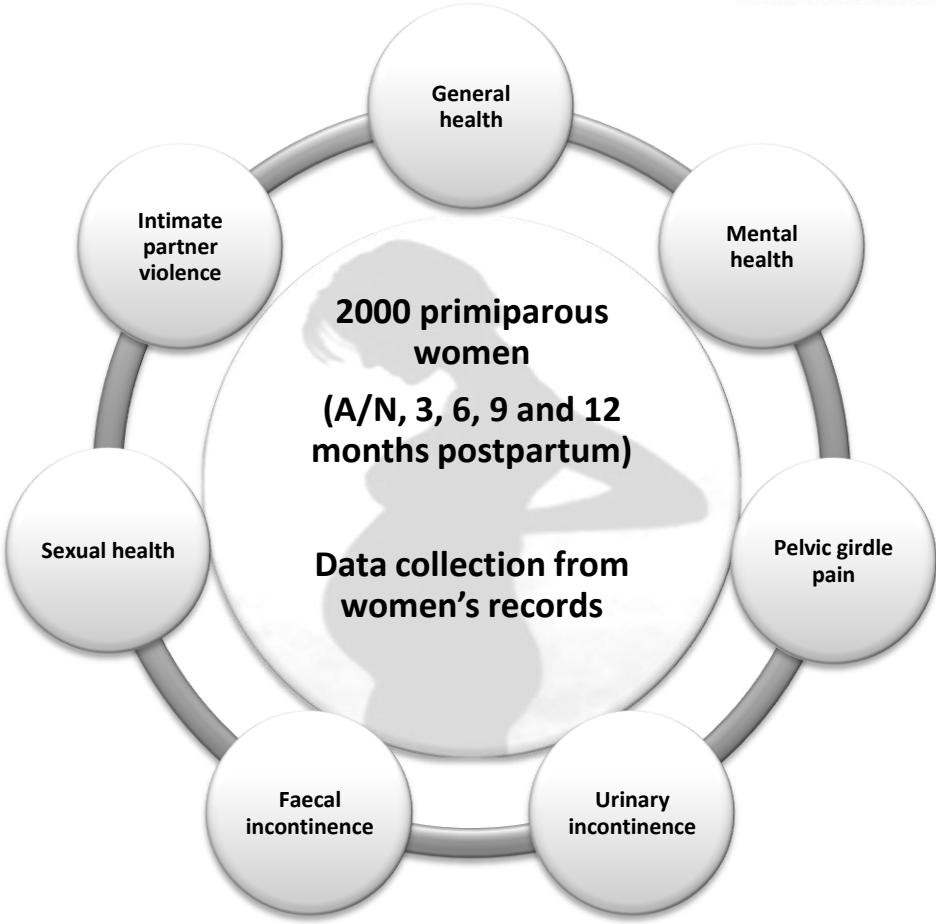
Objective (i)

to identify prevalence of morbidities up to 12 months postpartum for women having their first baby

Objective (ii)

to identify associated factors e.g., age; Body Mass Index (BMI); mode of birth; birth weight



The MAMMI Study

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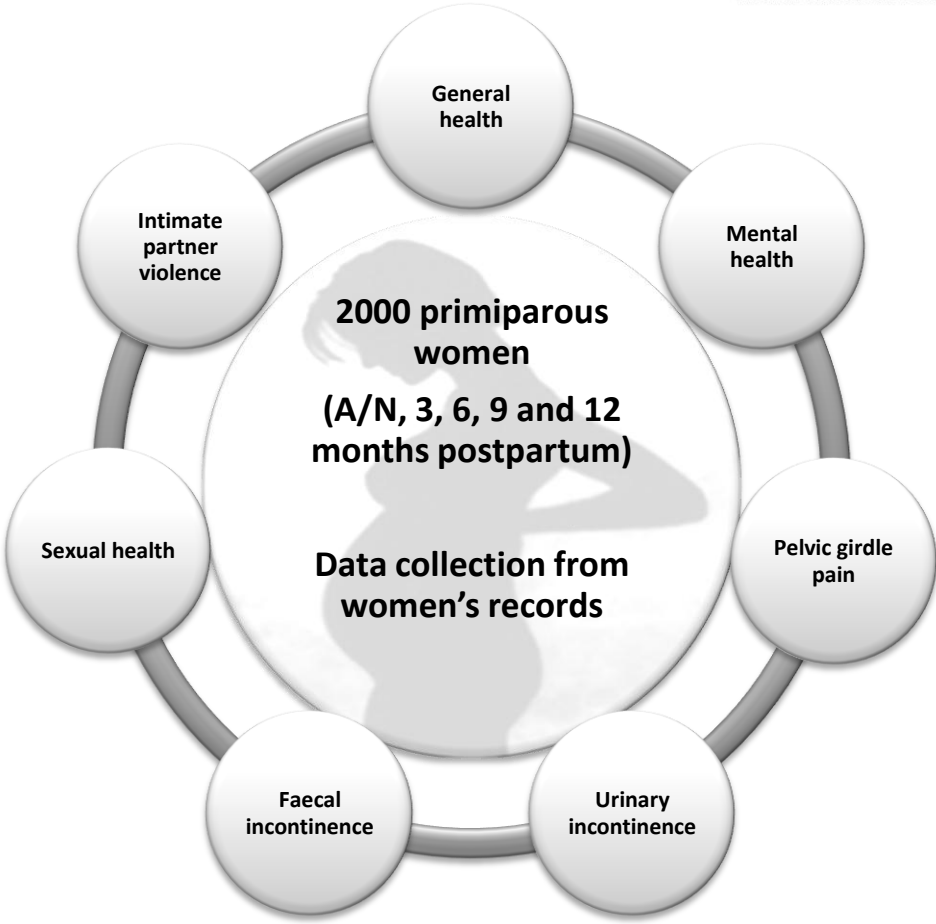
Objective (iii)

to identify the health service-seeking and self-help behaviours of sub-samples of women experiencing morbidities

Objective (iv)

to identify the risk factors for morbidities that may be amenable to intervention



Mixed methods design

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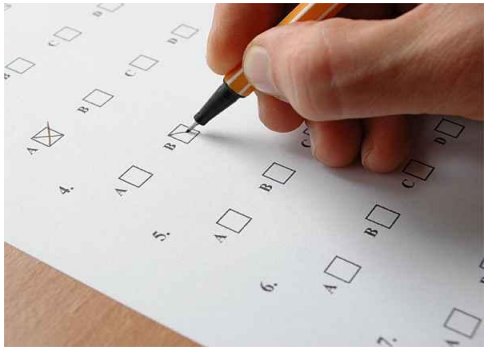
A cohort study with 2,000 first-time mothers: public, private, semi-private. Women are **recruited at booking visit** in one large maternity hospital (2nd site to follow)



- **Self completion survey**
  - **antenatally and at 3, 6, 9 and 12 months after birth**

- **Data collection** from women's records

- **Interviews** with **sub-samples** (n=20-30) of **women experiencing morbidities**

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The MAMMI study

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- **Preliminary data**
  - (~40%) of primiparous women are being offered information on the MAMMI study
  - Of those given the information, about two in five complete the survey
  - Response rate (~40%)

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Participant profile- age

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Age group	The MAMMI Study (n = 724)	%	Site Hospital 2011 (n = 4151)	%
Up to 24	62	**8.6**	976	**23.5**
25 to 29	166	**22.9**	1137	**27.4**
30 to 34	304	**42.0**	1314	**31.7**
35 to 39	162	**22.4**	581	**14.0**
40 +	30	**4.1**	143	**3.4**
Total	724	**100**	4151	**100**

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Participant profile- status

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Status	The MAMMI Study (n = 723)	%	ESRI 2011 (n = 74,377)	%
Married	448	**62.0**	48,492	**65.2**
Divorced/ separated	2	**0.3**	1,063	**1.4**
Single	33	**4.6**	24,667	**33.2**
Living with partner	187	**25.9**		
In relationship, not living together	47	**6.5**		
Other	6	**0.8**	64	**0.1**

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Participant profile- nationality

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Nationality	The MAMMI Study (n = 720)	%	Site Hospital 2011	%
Irish	496	**68.9**	5957	**65.35**
EU	172	**23.9**	1929	**21.16**
Non EU	38	**5.3**	1217	**13.35**
Unknown	14	**1.9**	13	**0.14**

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Participant profile- BMI

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Nationality	The MAMMI Study (n = 666)	%
Underweight	50	**7.5**
Normal weight	438	**65.8**
Overweight	113	**17.0**
Obese	53	**8.0**
Very obese	12	**1.8**
Total	666	**100.0**


Results

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Back pain and pelvic pain

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	Back pain occasionally	Back pain often
12 months before pregnancy n=720	17.2%	6.3%

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Back pain and pelvic pain

HRB Health Research Board

	Back pain occasionally	Back pain often
12 months before pregnancy n=720	17.2%	6.3%
At start of pregnancy n=720	30.4%	14.3%

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Back pain and pelvic pain

HRB Health Research Board

	Back pain occasionally	Back pain often
12 months before pregnancy n=720	17.2%	6.3%
At start of pregnancy n=720	30.4%	14.3%
At 3 months postnatal n=125	37.6%	16.8%

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Back pain and pelvic pain

HRB Health Research Board

	Back pain occasionally	Back pain often	Pelvic pain occasionally	Pelvic pain often
12 months before pregnancy n=720/533	17.2%	6.3%	2.1%	
At start of pregnancy n=720/719	30.4%	14.3%		
At 3 months postnatal n=125/123	37.6%	16.8%		

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Back pain and pelvic pain

HRB Health Research Board

	Back pain occasionally	Back pain often	Pelvic pain occasionally	Pelvic pain often
12 months before pregnancy n=720/533	17.2%	6.3%	2.1%	
At start of pregnancy n=720/719	30.4%	14.3%	8.8%	1.5%
At 3 months postnatal n=125/123	37.6%	16.8%		

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Back pain and pelvic pain

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	Back pain occasionally	Back pain often	Pelvic pain occasionally	Pelvic pain often
12 months before pregnancy n=720/533	17.2%	6.3%	2.1%	
At start of pregnancy n=720/719	30.4%	14.3%	8.8%	1.5%
At 3 months postnatal n=125/123	37.6%	16.8%	9.8%	3.3%

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Haemorrhoids and constipation

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	Haemorr-hoids occasionally	Haemorr-hoids often
12 months before pregnancy n=721	4.9%	1.5%
At start of pregnancy n=692		
At 3 months postnatal n=121		

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Haemorrhoids and constipation

HRB Health Research Board

	Haemorr-hoids occasionally	Haemorr-hoids often
12 months before pregnancy n=721	4.9%	1.5%
At start of pregnancy n=692	6.8%	3.2%
At 3 months postnatal n=121		

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Haemorrhoids and constipation

HRB Health Research Board

	Haemorr-hoids occasionally	Haemorr-hoids often
12 months before pregnancy n=721	4.9%	1.5%
At start of pregnancy n=692	6.8%	3.2%
At 3 months postnatal n=121	21.5%	14.0%

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Haemorrhoids and constipation

HRB Health Research Board

	Haemorr-hoids occasionally	Haemorr-hoids often	Constipation occasionally	Constipation often
12 months before pregnancy n=721/721	4.9%	1.5%	11.2%	3.9%
At start of pregnancy n=692/724	6.8%	3.2%		
At 3 months postnatal n=121/123	21.5%	14.0%		

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Haemorrhoids and constipation

HRB Health Research Board

	Haemorr-hoids occasionally	Haemorr-hoids often	Constipation occasionally	Constipation often
12 months before pregnancy n=721/721	4.9%	1.5%	11.2%	3.9%
At start of pregnancy n=692/724	6.8%	3.2%	23.3%	13.1%
At 3 months postnatal n=121/123	21.5%	14.0%	33.3%	6.5%

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Depression and anxiety

HRB Health Research Board

	Depression occasionally	Depression often	Anxiety occasionally	Anxiety often
12 months before pregnancy n=721/719	8.2%	2.6%	2.8%	1.7%
At start of pregnancy n=723/721	8.2%	1.7%	2.5%	0.8%

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Depression and anxiety

HRB Health Research Board

	Depression occasionally	Depression often	Anxiety occasionally	Anxiety often
12 months before pregnancy n=721/719	8.2%	2.6%	2.8%	1.7%
At start of pregnancy n=723/721	8.2%	1.7%	2.5%	0.8%
At 3 months postnatal n=124/123	17.7%			

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Depression and anxiety

HRB Health Research Board

	Depression occasionally	Depression often	Anxiety occasionally	Anxiety often
12 months before pregnancy n=721/719	8.2%	2.6%	2.8%	1.7%
At start of pregnancy n=723/721	8.2%	1.7%	2.5%	0.8%
At 3 months postnatal n=124/123	17.7%		10.6%	1.6%

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EPDS: n = 688

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	0 - 9	10 - 12	13 - 19	20 -
At start of pregnancy	579 (84.2%)	53 (7.7%)	52 (7.6%)	4 (0.6%)

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Urinary incontinence

Health Research Board

	On exercise	On way to toilet
12 months before pregnancy n=725/724	22.8%	18.1%
At start of pregnancy n=723/719		
At 3 months postnatal n=124/124		

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Urinary incontinence

HRB Health Research Board

	On exercise	On way to toilet
12 months before pregnancy n=725/724	22.8%	18.1%
At start of pregnancy n=723/719	33.5%	16.8%
At 3 months postnatal n=124/124		

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Urinary incontinence

HRB Health Research Board

	On exercise	On way to toilet
12 months before pregnancy n=725/724	22.8%	18.1%
At start of pregnancy n=723/719	33.5%	16.8%
At 3 months postnatal n=124/124	54.8%	39.8%

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Urinary incontinence

HRB Health Research Board

	On exercise	On way to toilet	Drops/ just a little	More like a trickle	More than a trickle
12 months before pregnancy n=725/724/280	22.8%	18.1%	90.4%	8.6%	1.1%
At start of pregnancy n=723/719/303	33.5%	16.8%			
At 3 months postnatal n=124/124/75	54.8%	39.8%			

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Urinary incontinence

HRB Health Research Board

	On exercise	On way to toilet	Drops/ just a little	More like a trickle	More than a trickle
12 months before pregnancy n=725/724/280	22.8%	18.1%	90.4%	8.6%	1.1%
At start of pregnancy n=723/719/303	33.5%	16.8%	80.9%	15.8%	2.6%
At 3 months postnatal n=124/124/75	54.8%	39.8%			

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Urinary incontinence

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	On exercise	On way to toilet	Drops/ just a little	More like a trickle	More than a trickle
12 months before pregnancy n=725/724/280	22.8%	18.1%	90.4%	8.6%	1.1%
At start of pregnancy n=723/719/303	33.5%	16.8%	80.9%	15.8%	2.6%
At 3 months postnatal n=124/124/75	54.8%	39.8%	74.7%	10.7%	9.3%

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Faecal incontinence

Health Research Board

	Passed wind, minor amount	Passed wind, major amount
12 months before pregnancy n=720	33.8%	2.2%
At start of pregnancy n=710		
At 3 months postnatal N=120		

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Faecal incontinence

Health Research Board

	Passed wind, minor amount	Passed wind, major amount
12 months before pregnancy n=720	33.8%	2.2%
At start of pregnancy n=710	40.1%	4.9%
At 3 months postnatal N=120		

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Faecal incontinence

Health Research Board

	Passed wind, minor amount	Passed wind, major amount
12 months before pregnancy n=720	33.8%	2.2%
At start of pregnancy n=710	40.1%	4.9%
At 3 months postnatal N=120	35.0%	15.0%

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Faecal incontinence

HRB Health Research Board

	Passed wind, minor amount	Passed wind, major amount	Soiling, minor amount	Soiling, major amount
12 months before pregnancy n=720/724/721	33.8%	2.2%	8.3%	0.0%
At start of pregnancy n=710/722/722	40.1%	4.9%	3.5%	0.1%
At 3 months postnatal N=120/125/125	35.0%	15.0%		

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Faecal incontinence

HRB Health Research Board

	Passed wind, minor amount	Passed wind, major amount	Soiling, minor amount	Soiling, major amount
12 months before pregnancy n=720/724/721	33.8%	2.2%	8.3%	0.0%
At start of pregnancy n=710/722/722	40.1%	4.9%	3.5%	0.1%
At 3 months postnatal N=120/125/125	35.0%	15.0%	14.4%	0.0%

Pain during intercourse

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	Pain during intercourse
12 months before pregnancy n=717	22.2%
At start of pregnancy n=685	16.1%
At 3 months postnatal n=72	27.8%

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Pain during intercourse

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	Pain during intercourse	Very satisfied with sex	Moderately satisfied with sex
12 months before pregnancy n=717/715	22.2%	49.7%	37.2%
At start of pregnancy n=685/688	16.1%	29.8%	39.2%
At 3 months postnatal n=72	27.8%		

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Implications for health professionals

Do they tell us?

Do we ask?

Did you ever talk to a doctor or other health professional about controlling when you pass urine?

➢ Key points: Women with stress incontinence (on exercise)	
Before pregnancy: 165 women out of 723	(23%)
At start of pregnancy: 242 women out of 723	(34%)
Since birth: 68 women out of 124	(55%)

Did NOT talk to any health professional	
Before pregnancy, 155 out of 165 women with SI	94%
At start of pregnancy, 211 out of 242 women with SI	87%
Since birth, 50 out of 68 women with SI	74%

Did you ever talk to a doctor or other health professional about controlling bowel motions?

➢ Key points: Women with faecal incontinence	
Before pregnancy: 60 women out of 724	(8.3%)
At start of pregnancy: 26 women out of 722	(3.6%)
Since birth: 18 women out of 125	(14.4%)

Did NOT talk to any health professional	
Before pregnancy, 50 out of 60 women with FI	83%
At start of pregnancy, 24 out of 26 women with FI	92%
Since birth 11 out of 18 women with FI	61%

Did you ever talk to a doctor or other health professional about pain during intercourse?

➢ Key points: Women experiencing pain during intercourse	
Before pregnancy: 159 women out of 717	(22%)
At start of pregnancy: 110 women out of 685	(16%)
At 3 months: 20 women out of 72	(28%)

Did NOT talk to any health professional	
Before pregnancy 115 out of 159 women with pain on intercourse	72%
At start of pregnancy, 101 out of 110 women with pain on intercourse	92%
At 3 months, 17 out of the 20 women with pain on intercourse	85%

Did you ever talk to a doctor or other health professional about depression?

➢ Key points: Women experiencing depression	
Before pregnancy: 78 women out of 717	(11%)
At start of pregnancy: 71 women out of 723	(10%)
At 3 months: 22 women out of 72	(18%)

Did NOT talk to any health professional	
Before pregnancy: N/A	
At start of pregnancy, 54 out of 71 women with depression	76%
At 3 months N/A	

Did a doctor ever ask you, since birth, about:

	Yes	No
…leakage or involuntary loss of urine?	24%	70.2%

Did a doctor ever ask you, since birth, about:

	Yes	No
…leakage or involuntary loss of urine?	24%	70.2%
…leakage or involuntary loss of bowel motion?	19.8%	77.6%

Did a doctor ever ask you, since birth, about:

	Yes	No
…leakage or involuntary loss of urine?	24%	70.2%
…leakage or involuntary loss of bowel motion?	19.8%	77.6%
…sexual problems?	9.2%	86.6%

Did a doctor ever ask you, since birth, about:

	Yes	No
…leakage or involuntary loss of urine?	24%	70.2%
…leakage or involuntary loss of bowel motion?	19.8%	77.6%
…sexual problems?	9.2%	86.6%
…feeling depressed or low?	50.4%	47.9%

Did a midwife or public health nurse ever ask you, since birth, about:

	Yes	No
…leakage or involuntary loss of urine?	23.8%	68.0%
…leakage or involuntary loss of bowel motion?	21.3%	71.3%
…sexual problems?	6.6%	90.1%
…feeling depressed or low?	58.2%	36.1%

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So what can we learn from these data?

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So what can we learn from these data?

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Analysis of data from these 725 women show that

More than 1 in 3 participants experienced some degree of urinary incontinence at the start of pregnancy …and most did not talk to a healthcare professional

18 women out of 125 experienced some faecal incontinence 3 months after birth, and only 7 of them talked to a healthcare professional about it.

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So what can we learn from these data?

Analysis of data from these 725 women show that:

One in 4 participants experienced pain during intercourse and most did not talk to a healthcare professional.

One in 10 participants at the start of pregnancy were depressed, and 75% of them did not talk about it to a health professional.

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What can we do?

Whilst these problems remain undisclosed and not discussed women who could become continent, have pain-free intercourse or feel happy and content…..

….will continue to be incontinent, experience pain on intercourse, or feel depressed, anxious or stressed.

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Does this matter?

Women ***reporting occasional UI before pregnancy*** have ***raised odds*** of developing UI during pregnancy

Brown et *al* 2010

Women ***who develop UI during the first pregnancy or puerperium*** have a ***significantly higher risk of UI 5 years later*** than women without UI symptoms

Viktrup & Lose 2000

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The MAMMI Study

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- **Conclusion**

  - **The MAMMI study** is ongoing
    - Sample size will be 2000 when MAMMI 2 (Galway site) commences recruitment
  - Detailed analyses are required before data are truly understood and statistical significance and associations are ascertained
  - Only then can modifiable factors be identified

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The message

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Urinary incontinence,

faecal incontinence,

sexual health problems

and depression…..

…….are not normal and can be treated.

So we need to ask about them!!

Useful references

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