

Trinity College Dublin

The MAMMI Study

Maternal health And Maternal Morbidity in Ireland



The health of primiparous women after 'normal' birth

8th International Normal Labour and Birth Conference

**Getting it right first time: normal birth research and the individual,
family and society**

5-7th June 2013

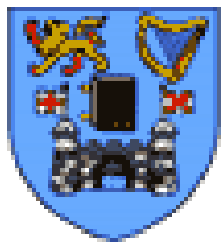
Grange Over Sands, Cumbria, UK

Déirdre Daly

Lecturer in Midwifery/HRB Research Fellow, Trinity College Dublin

Supervisors:

Professor Cecily Begley, TCD and Professor Mike Clarke, QUB (Adjunct Professor TCD)



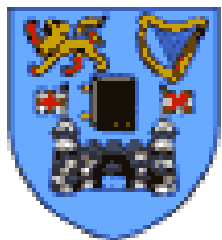
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The MAMMI Study (UI Strand)



Sincerest thanks to

- **The women** (all women including those who are not taking part but who read the information)
- The **midwives** and **midwifery students** and other **colleagues** who are supporting the MAMMI study
- My supervisors **Professor Cecily Begley** and **Professor Mike Clarke**
- My colleagues **Margaret Carroll, Deirdre O'Malley, Francesca Wuytack**
- **Rebekah Maguire** and **Sophie Clare** who worked with us on the MAMMI study in summer 2012
- The **Health Research Board (HRB)** for funding the MAMMI study (UI) strand
- **Professor Stephanie Brown**, Murdoch Children's Research Institute, Australia for granting permission to use and modify surveys



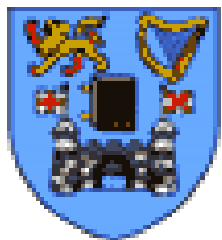
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The MAMMI Study

Maternal health And Maternal Morbidity in Ireland



- **Overview of study methodology**
- **Aim and objectives of MAMMI study and the MAMMI study urinary incontinence (UI) strand**
- **Preliminary findings on postpartum health (after normal vaginal birth)**
- **Summary, relevance and final message**



The MAMMI Study

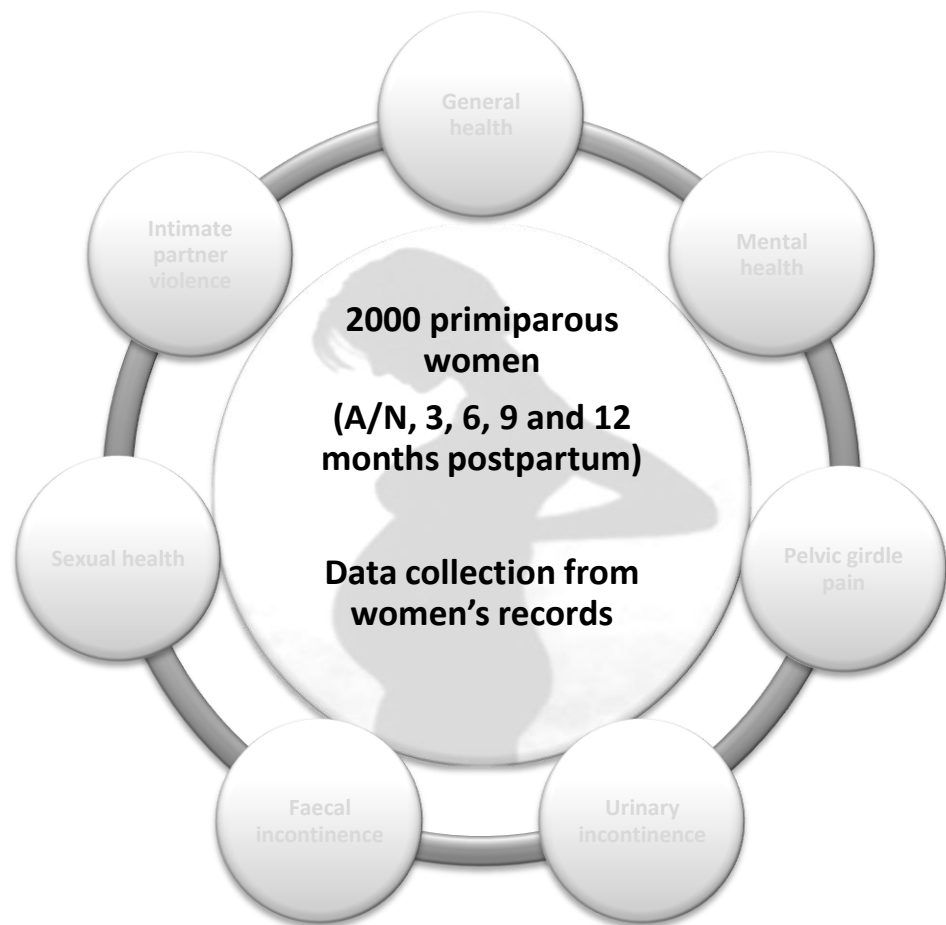
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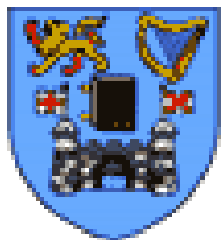
Objective (i)

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



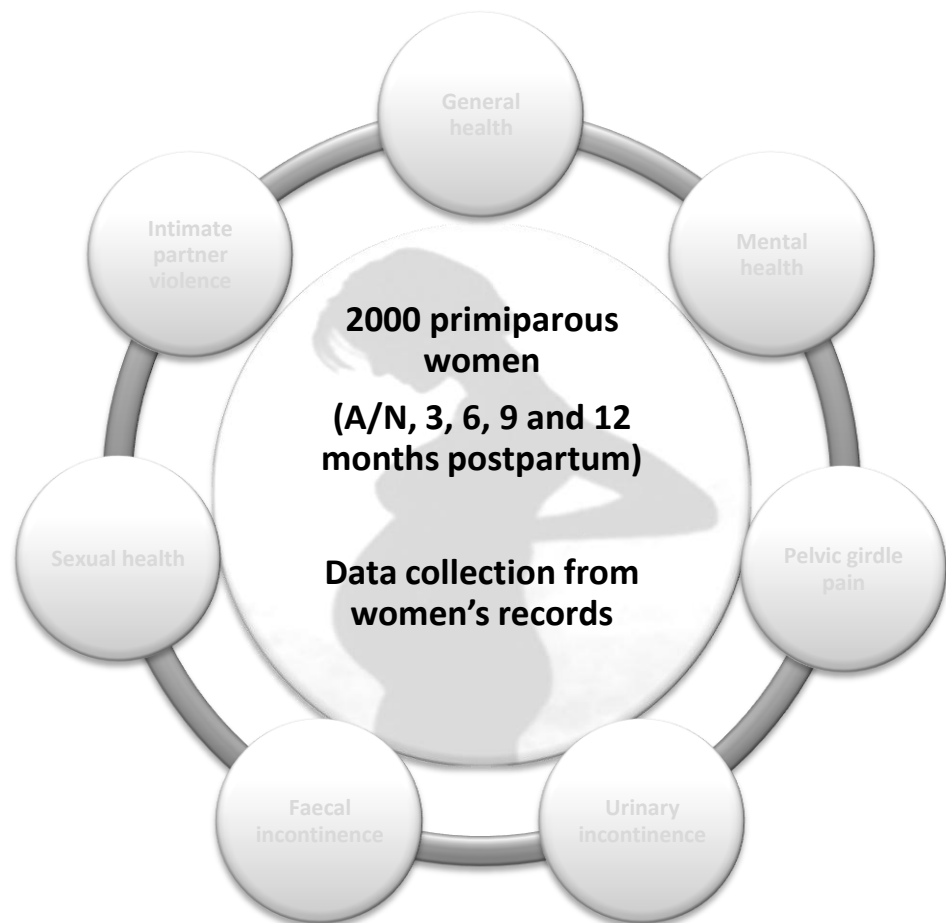
Trinity College Dublin

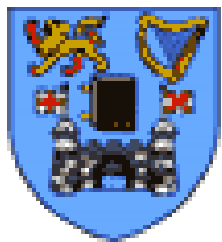
Objective (iii)

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





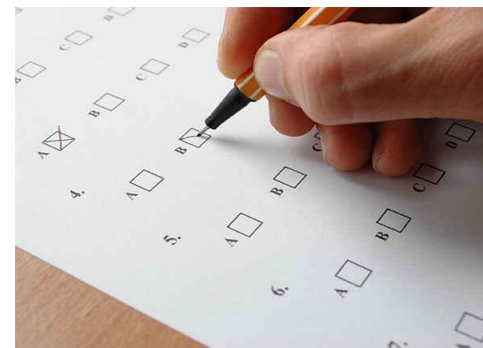
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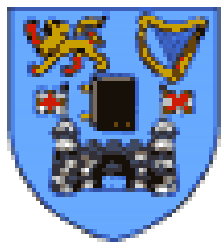
Mixed methods design



The MAMMI Study

A cohort study with 2,000 first-time mothers: public, private, semi-private – survey. Women are recruited at booking visit in one large maternity hospital (1600 from 1st site and 400 from 2nd site





Mixed methods design



The MAMMI Study

Trinity College Dublin

Study No

The MAMMI study
Maternal health And Maternal Morbidity in Ireland

A research study of 1600 first-time mothers' health during pregnancy and after giving birth.

Survey Booklet One: Antenatal 1

Thank you for taking the time to complete this survey. It will take you about 30 minutes to complete it and your answers are **confidential**. If you have any questions at all, or need help answering any of the questions, please feel free to call me – Deirdre Daly on 01 88888888.

The MAMMI survey has been approved by the Research Ethics Committees of the Rotunda Hospital and the Faculty of Health Sciences, Trinity College Dublin.

Please tick here if you do NOT wish to complete this or future surveys ☐

Survey 1
Antenatal
First booking visit

The MAMMI study
Maternal health And Maternal Morbidity in Ireland

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Survey Booklet Two: 3 Months Postnatal 2

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Survey 2
3 months
postpartum

The MAMMI study
Maternal health And Maternal Morbidity in Ireland

A research study of 1600 first-time mothers' health during pregnancy and after giving birth.

Survey Booklet Three: 6 Months Postnatal 3

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Survey 3
6 months
postpartum

The MAMMI study
Maternal health And Maternal Morbidity in Ireland

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Survey Booklet Four: 9 Months Postnatal 4

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Survey 4
9 months
postpartum

The MAMMI study
Maternal health And Maternal Morbidity in Ireland

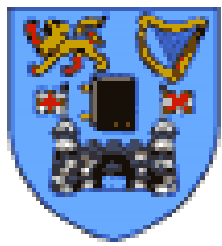
A research study of 1600 first-time mothers' health during pregnancy and after giving birth.

Survey Booklet Five: Twelve Months Postnatal 5

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Survey 5
12 months
postpartum



Mixed methods design



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Study No

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Survey Booklet One: Antenatal

1

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Survey Booklet Two: 3 Months Postnatal

2

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Survey Booklet Three: 6 Months Postnatal

3

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Survey Booklet Four: 9 Months Postnatal

4

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Survey Booklet Five: Twelve Months Postnatal

5

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Survey 1
Antenatal
First booking visit

Survey 2
3 months
postpartum

Survey 3
6 months
postpartum

Survey 4
9 months
postpartum

Survey 5
12 months
postpartum

Identify factors
amenable to
modification and
trialling in future
studies

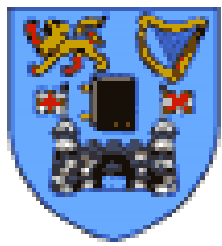
Data
collection
from
women's
records



Interviews
with women
experiencing
a morbidity



To ascertain
health service
and self-help
seeking
behaviour



The MAMMI Study



The MAMMI Study

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Each of the surveys asks women about...

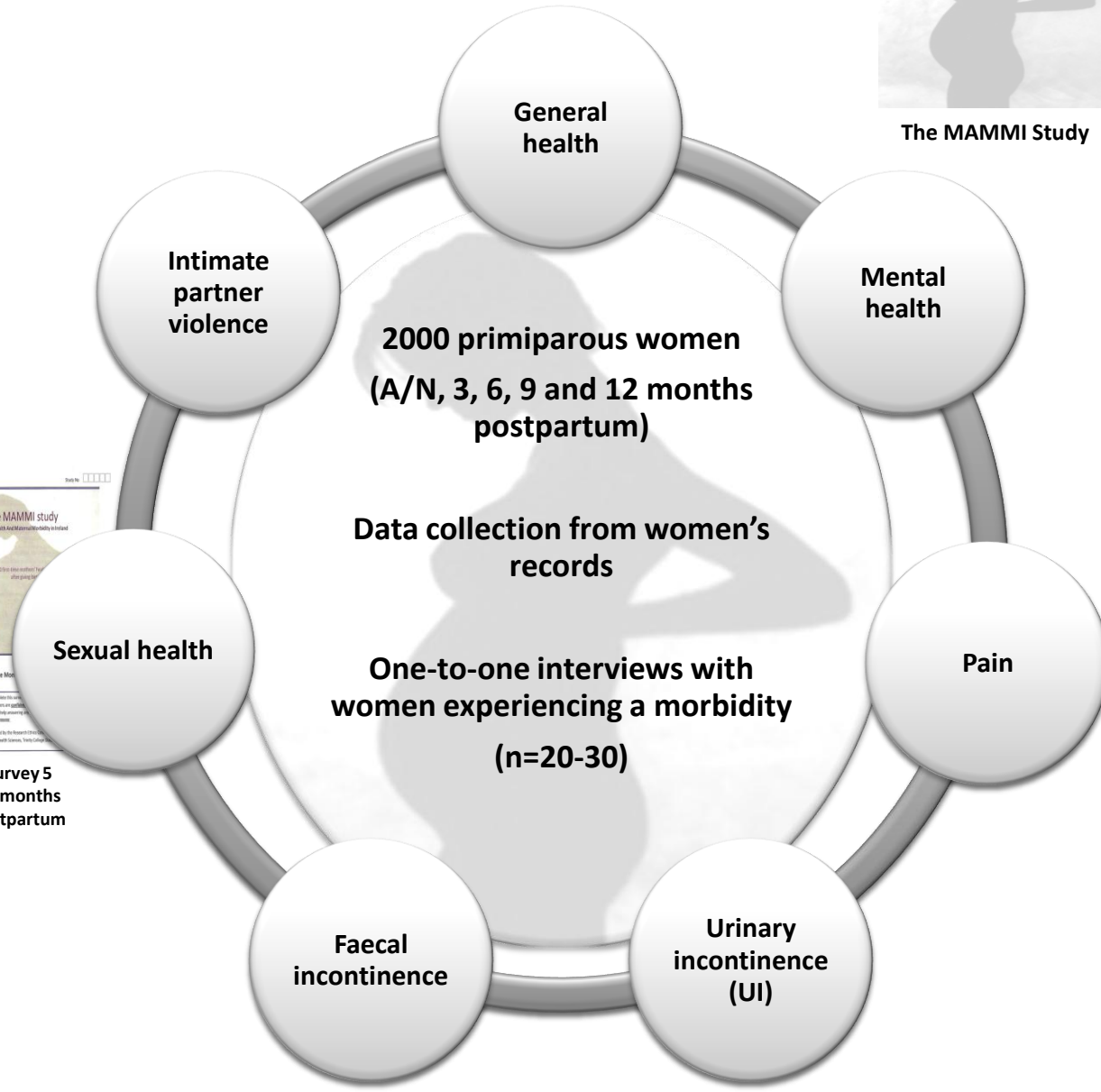
Survey 1
Antenatal
First booking visit

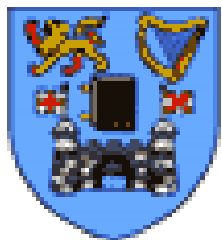
Survey 2
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Survey 3
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Survey 4
9 months
postpartum

Survey 5
12 months
postpartum





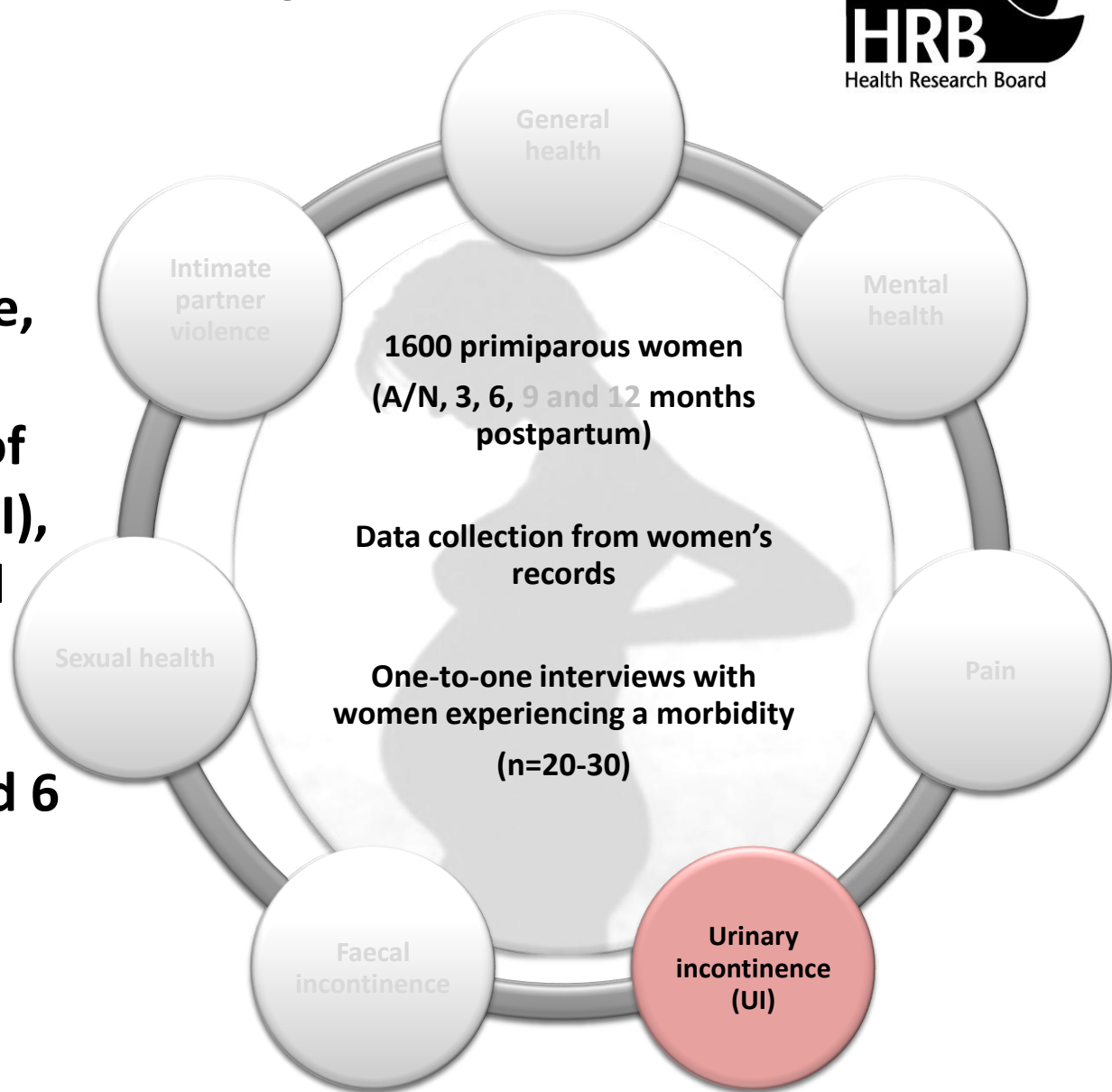
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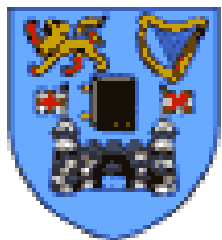
The MAMMI Study – UI Strand



Aim:

To identify the existence, extent, prevalence and associated risk factors of urinary incontinence (UI), one marker of maternal morbidity, in 1600 primiparous women antenatally and at 3 and 6 months postpartum.





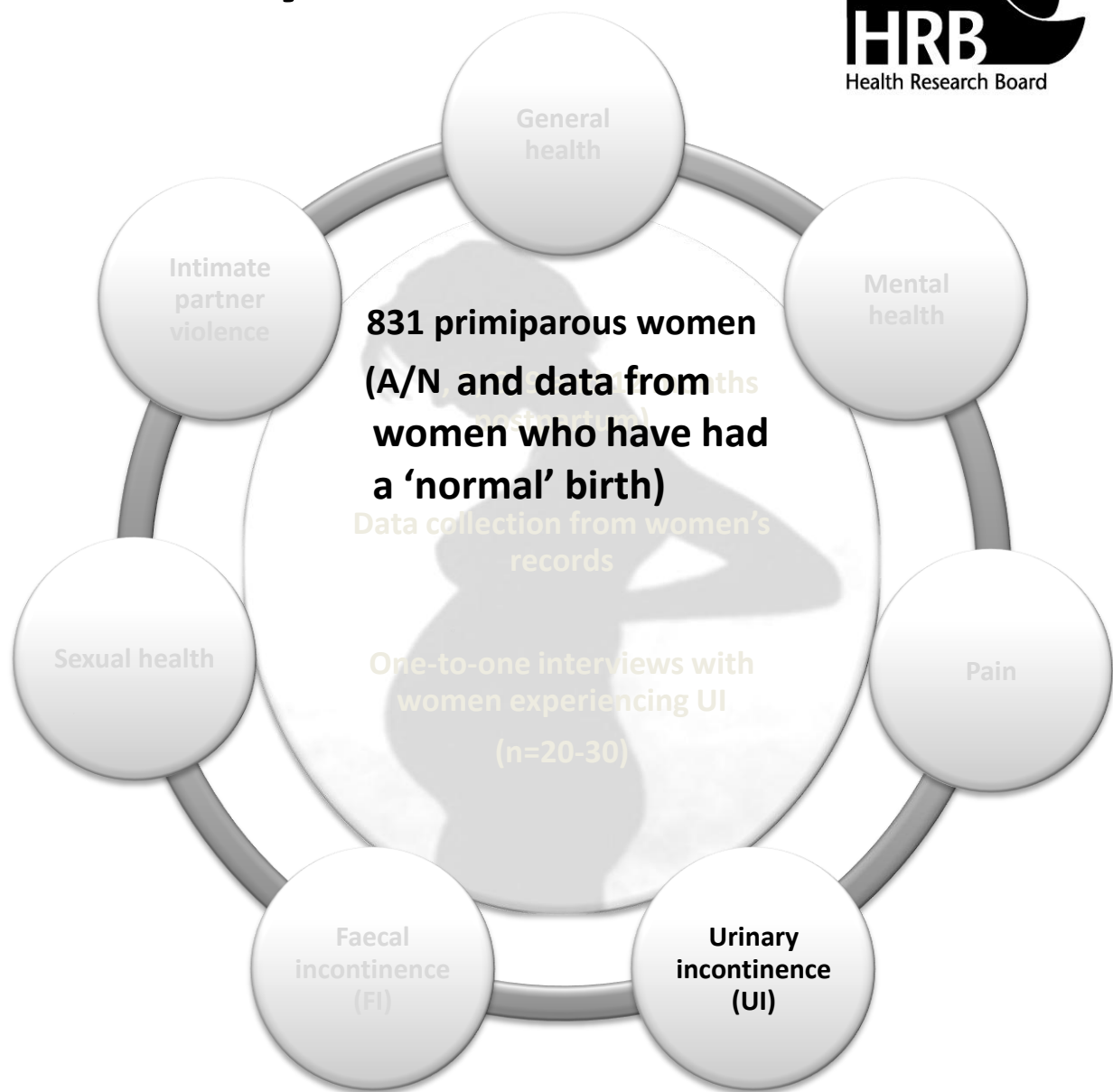
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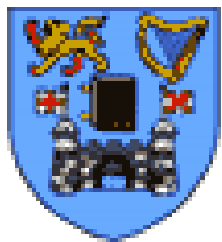
The MAMMI Study – UI Strand



**Today's presentation
focuses on
Objective (i)**

**The health of
primiparous
women after
'normal' birth**

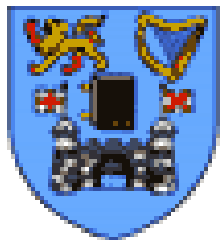




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A large, light gray silhouette of a pregnant woman, shown in profile, standing with her head tilted down. The silhouette is centered within a large, light gray circle that occupies the middle of the slide.

The participants

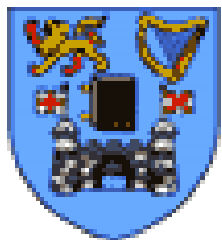


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The MAMMI study



- **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%)

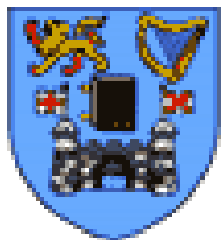


Participant profile



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Nationality	The MAMMI Study (n = 831)	%	Site Hospital 2011	%
Irish	536	64.5	5957	65.35
EU	208	25.0	1929	21.16
Non EU	70	8.4	1217	13.35
Unknown	17	2.1	13	0.14

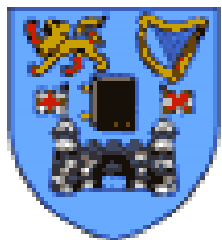


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Participant profile- status



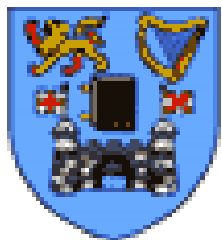
Status	The MAMMI Study (n = 723)	%	ESRI 2011 (n = 74,377)	%
Married	513	61.9	48,492	65.2
Divorced/ separated	2	.2	1,063	1.4
Single	36	37.0%	24,667	33.2
Living with partner	213			
In relationship, not living together	58			
Other	7	.8	64	0.1



Age groups

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Age group	The MAMMI Study (n = 831)	%	Site Hospital 2011 (n = 4151)	%
Up to 24	78	9.4	976	23.5
25 to 29	197	23.7	1137	27.4
30 to 34	347	41.8	1314	31.7
35 to 39	181	21.8	581	14.0
40 +	28	3.4	143	3.4
Total	831	100	4151	100



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BMI Category

BMI category	The MAMMI Study (n = 759)	%
Underweight	54	7.1
Normal weight	502	66.1
Overweight	132	17.4
Obese	58	7.6
Very obese	13	1.7
Total	759	100.0

Irish Maternity News

ILLUSTRATED 40-WEEKLY NEWSPAPER

Member of the Associated Press .

Aenean commodo ligula eget dolor.
Aenean. Aenean commodo ligula eget
dolor. Aenhswe. Cejhciebce fedced.

Est. 2011

FRIDAY 7th NOVEMBER 2013

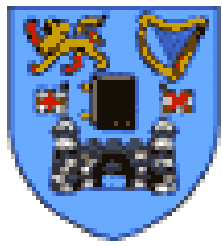
Cost **PRICELESS**

What's up with MAMMI?

Maternal
health
And
Maternal
Morbidity
in
Ireland

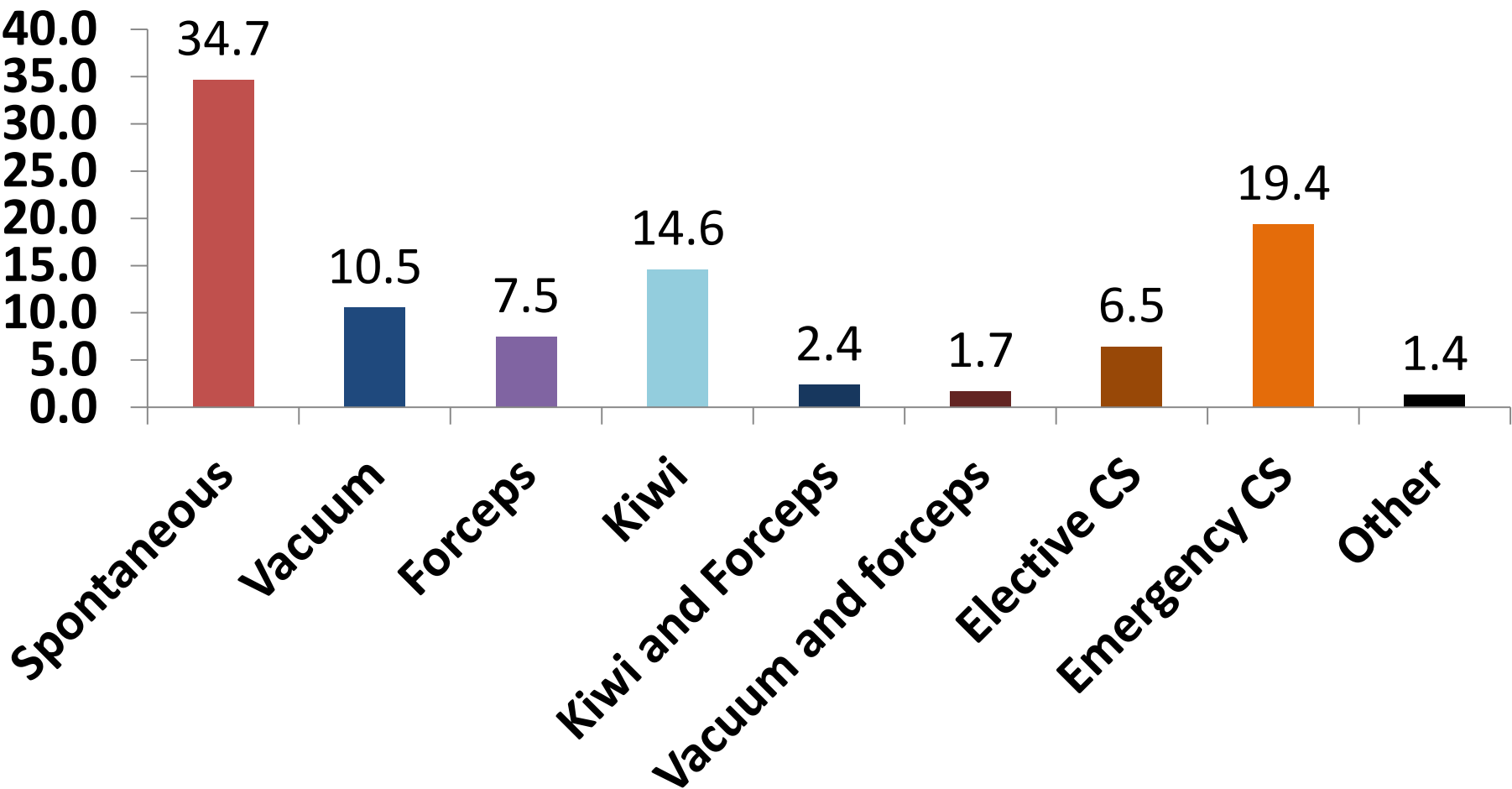
Early results

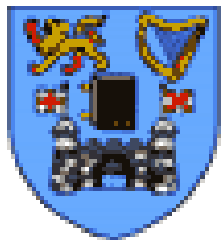




Mode of birth

Mode of birth (n = 294)

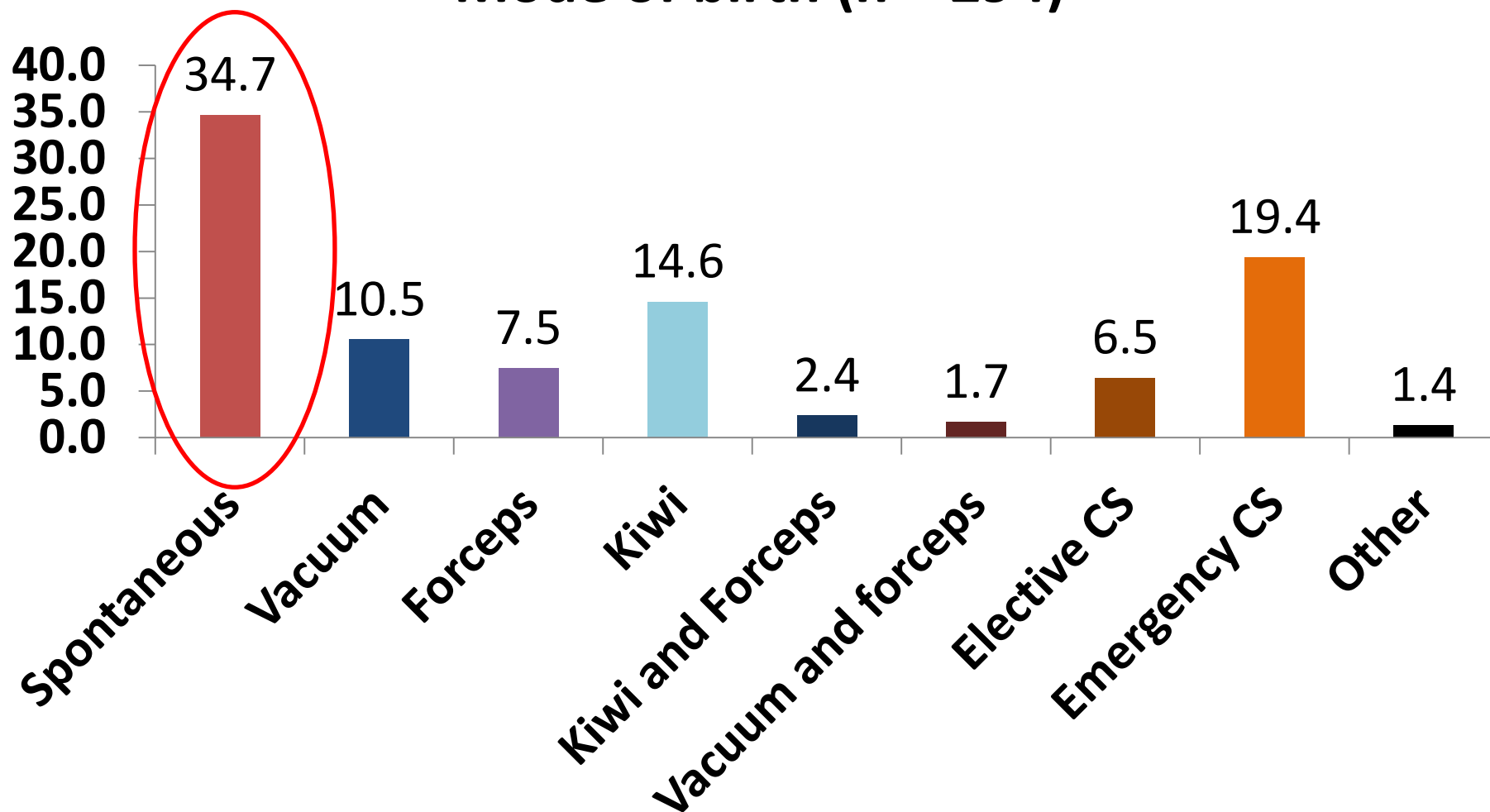


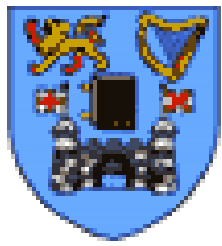


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Mode of birth

Mode of birth (n = 294)





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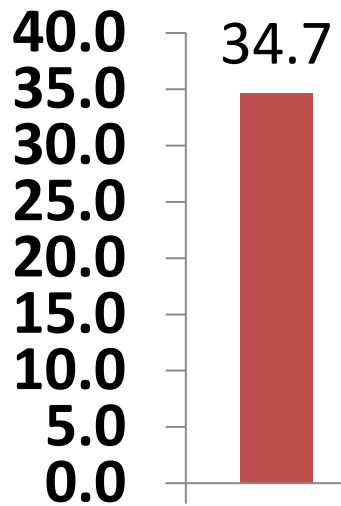
The health of primiparous women



The MAMMI Study

Normal birth (n = 102)

3 months postpartum



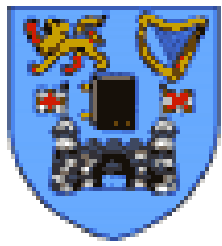
Spontaneous

Stress urinary incontinence (SUI)

Soiling

Depression

Dyspareunia

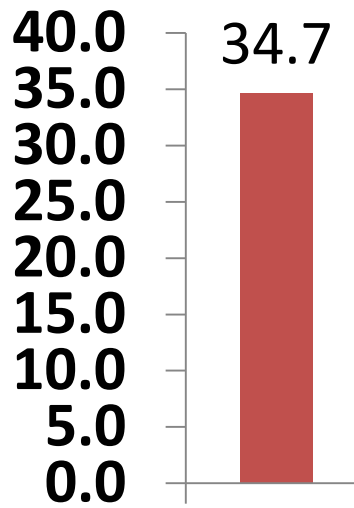


The health of primiparous women



The MAMMI Study

Normal birth (n = 102)



Spontaneous

3 months postpartum

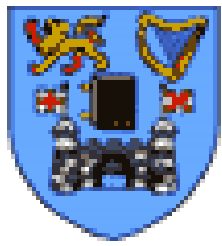


During pregnancy



12 months before pregnancy



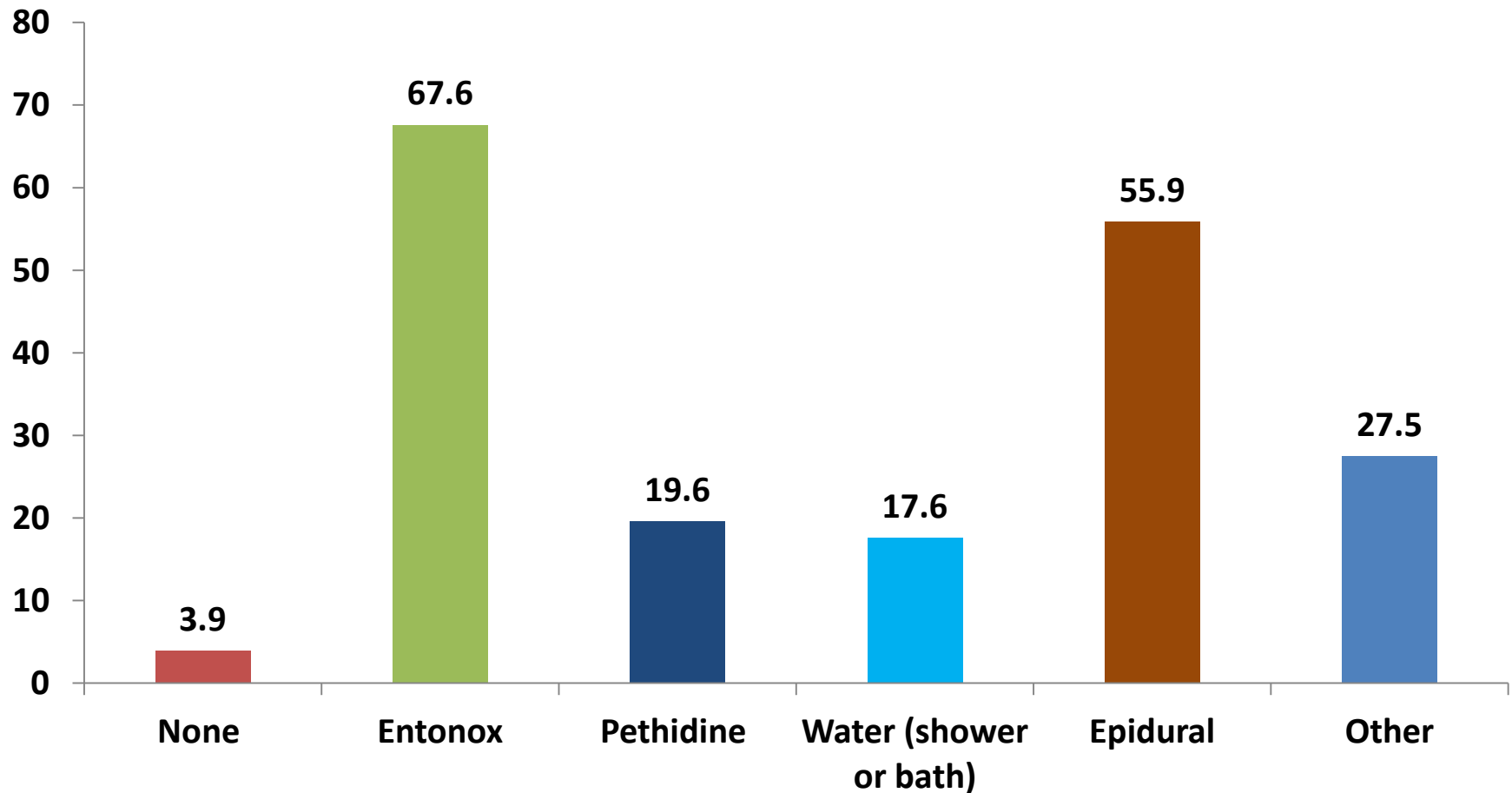


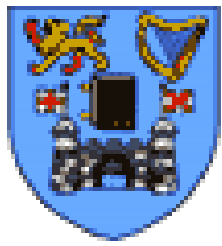
Pain management



The MAMMI Study

Pain management (n = 102)



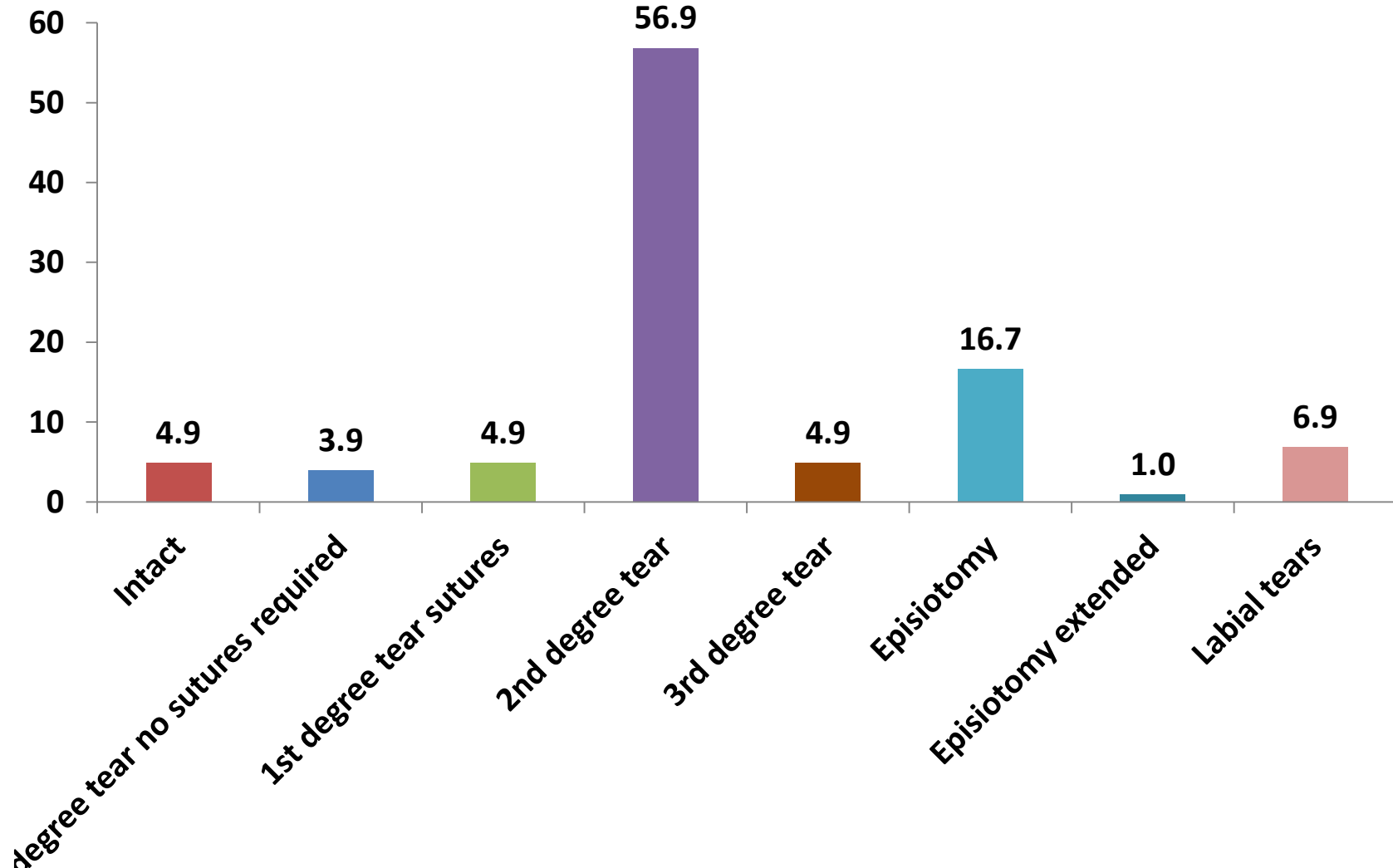


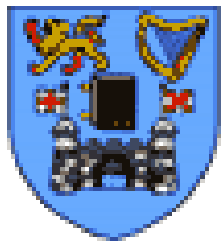
Perineum following 'normal' birth



The MAMMI Study

Perineum (n = 102)



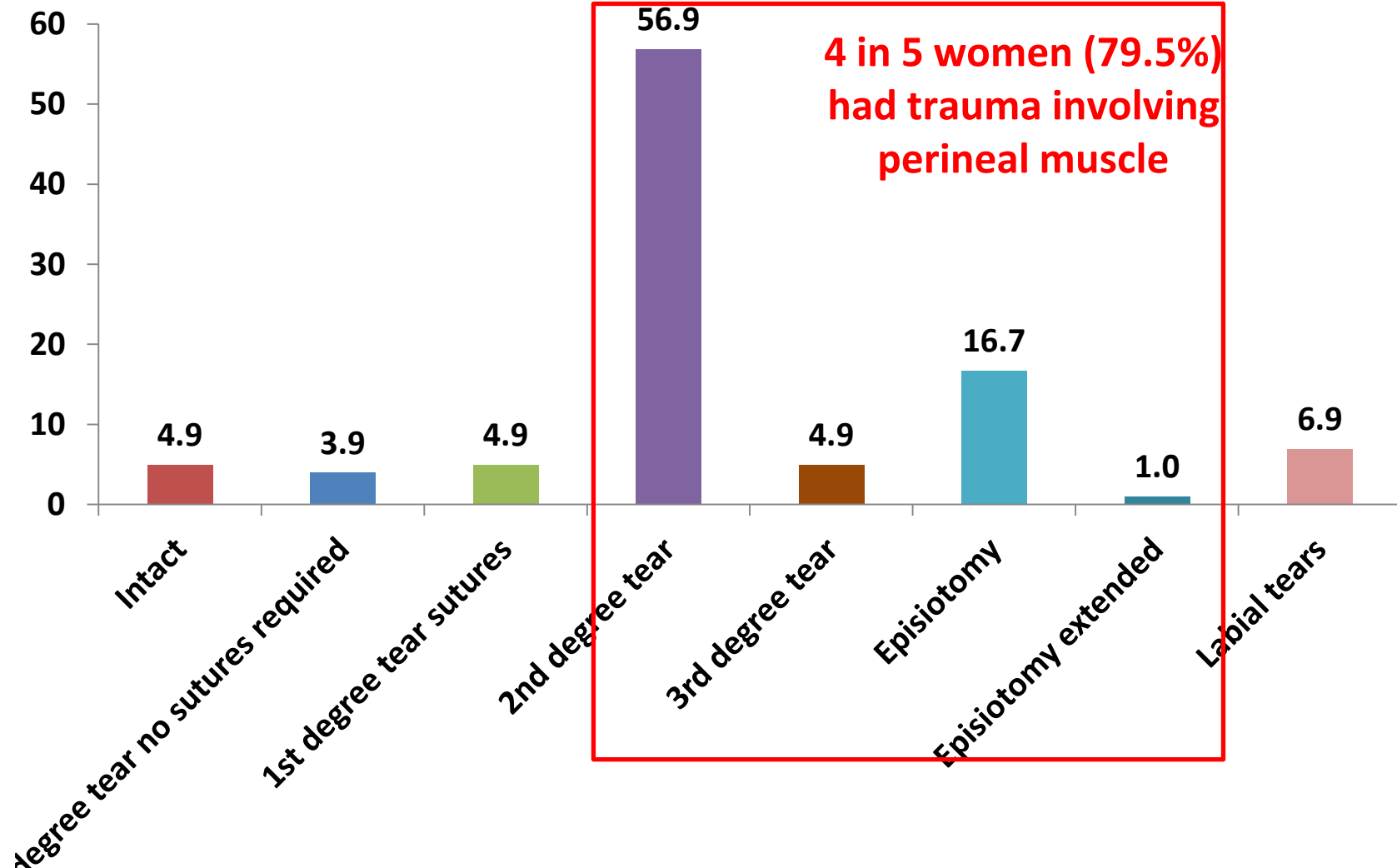


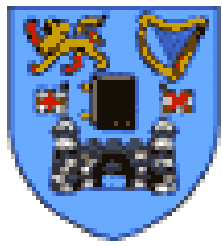
Perineum following 'normal' birth



The MAMMI Study

Perineum (n = 102)





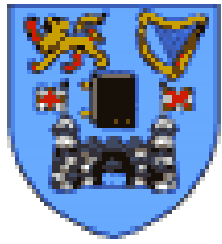
Duration of stay in hospital



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Duration of hospital stay	%
1-2 days	43.1
3-4 days	52.9
5-6 days	3.9
Community midwifery care	46.1
Readmission to hospital	0

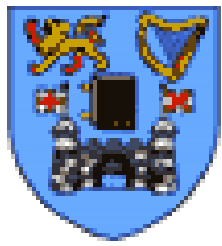


Stress Urinary Incontinence (SUI)



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	3 months postpartum
Occasional N= 81/829/831	25.9
1 or several times a month or more frequently	37.0
All SUI	62.9



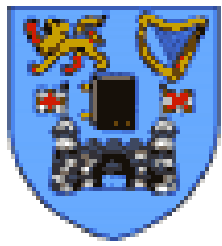
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SUI



The MAMMI Study

	3 months postpartum	During early pregnancy
Occasional N= 81/ 829/831	25.9	15.7 16.2
1 or several times a month or more frequently	37.0	13.7 15.9
All SUI	62.9	29.4 32.1



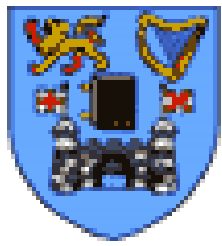
SUI



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	3 months postpartum	During early pregnancy	Before pregnancy
Occasional N= 81/829/831	25.9	15.7 16.2	13.4 16.8
1 or several times a month or more frequently	37.0	13.7 15.9	3.1 5.0
All SUI	62.9	29.4 32.1	16.5 21.8



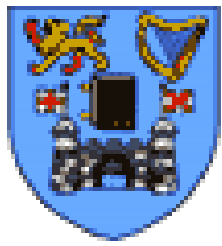
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Soiling



The MAMMI Study

	3 months postpartum
Soiling N= 79/828/831	13.9



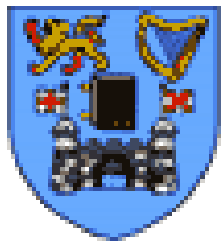
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Soiling



The MAMMI Study

	3 months postpartum	During early pregnancy
Soiling N= 79/828/831	13.9	4.1 3.4



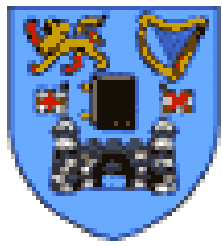
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Soiling



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	3 months postpartum	During early pregnancy	Before pregnancy
Soiling N= 79/828/831	13.9	4.1 3.4	5.2 8.2



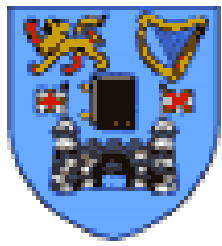
Depression and anxiety



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	3 months postpartum
Depression N=80/827/829	17.5
Anxiety N=80/825/826	11.3



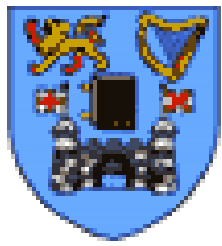
Depression and anxiety



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	3 months postpartum	During early pregnancy
Depression N=80/827/829	17.5	16.7% 10.3%
Anxiety N=80/825/826	11.3	14.4% 3.3%



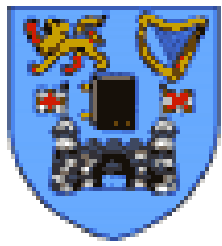
Depression and anxiety



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	3 months postpartum	During early pregnancy	Before pregnancy
Depression N=80/827/829	17.5	16.7% 10.3%	17.5% 10.7%
Anxiety N=80/825/826	11.3	14.4% 3.3%	4.2% 4.6%



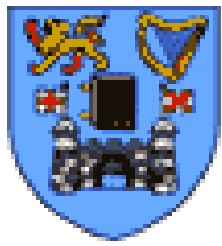
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Dyspareunia



The MAMMI Study

	3 months postpartum
Dyspareunia N= 40/805/821	15%



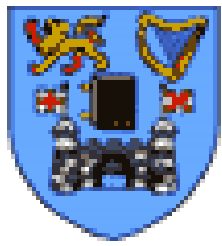
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Dyspareunia



The MAMMI Study

	3 months postpartum	During early pregnancy
Dyspareunia N= 40/805/821	15%	19.4% 17.4%

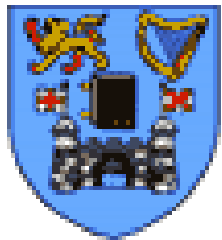


Dyspareunia

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The MAMMI Study

	3 months postpartum	During early pregnancy	Before pregnancy
Dyspareunia N= 40/805/821	15%	19.4% 17.4%	22.7% 23.4%



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Implications for health professionals



The MAMMI Study

What does this mean for healthcare professionals (HCPs)?

Do women ask for help?

Do we offer help?

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

➤ **Key points: Women with stress urinary incontinence**

Before pregnancy: 181 women out of 831 (22%)

At start of pregnancy: 266 women out of 829 (32%)

Did NOT talk to any health professional

Before pregnancy, 164 out of 181 women with SUI 91%

At start of pregnancy, 230 out of 266 women with SUI 87%

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

➤ Key points: Women with soiling

Before pregnancy: 68 women out of 831	(8%)
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At start of pregnancy: 28 women out of 828	(3%)
---	-------------

Did NOT talk to any health professional

Before pregnancy, 56 out of 68 women with soiling	82%
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At start of pregnancy, 26 out of 28 women with soiling	93%
---	------------

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

➤ Key points: Women experiencing depression

Before pregnancy: 89 women out of 829	(11%)
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At start of pregnancy: 85 women out of 827	(10%)
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Did NOT talk to any health professional

Before pregnancy: N/A	
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At start of pregnancy, 43 out of 85 women with depression	50%
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Did you ever talk to a doctor or other health professional about dyspareunia?

➤ **Key points: Women experiencing dyspareunia**

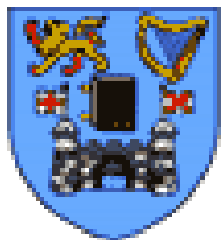
Before pregnancy: 192 women out of 821	(23%)
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At start of pregnancy: 140 women out of 805	(17%)
--	--------------

Did NOT talk to any health professional

Before pregnancy 141 out of 189 women with dyspareunia	75%
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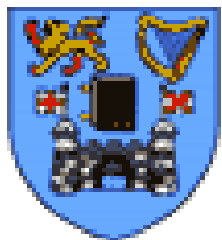
At start of pregnancy, 125 out of 135 women with dyspareunia	93%
---	------------



Since birth Talking about/being asked about bladder problems



Since birth: 64 women out of 102 had SUI			
Did you talk to anyone?		Did the following HCPs ask you?	
	No		No
Anyone N=53/102	57%		
GP	82%	GP	69%
Public Health Nurse (PHN)	82%	PHN/ Midwife	55%
Midwife	86%		



Since birth

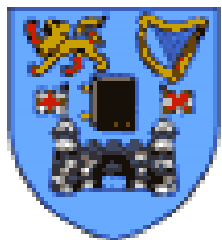
Talking about/being asked about soiling



The MAMMI Study

Since birth: 11 women out of 79 had soiling

Did you talk to anyone?		Did the following HCPs ask you?	
	No		No
Anyone	74%		
GP	73%	GP	73%
Public Health Nurse (PHN)	0	PHN/ Midwife	66%
Midwife	0		



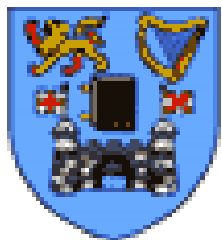
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Since birth Talking about/being asked about depression



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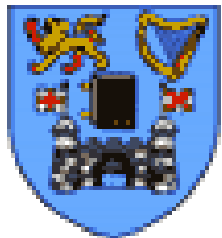
Since birth: 14 women out of 80 had depression			
Did you talk to anyone?		Did the following HCPs ask you?	
	No		No
Anyone			
GP	Asked in different format alongside EPDS	GP	49%
Public Health Nurse (PHN)		PHN/ Midwife	30%
Midwife			



Since birth Talking about/being asked about sexual health

Since birth: 11 women out of 40 had dyspareunia

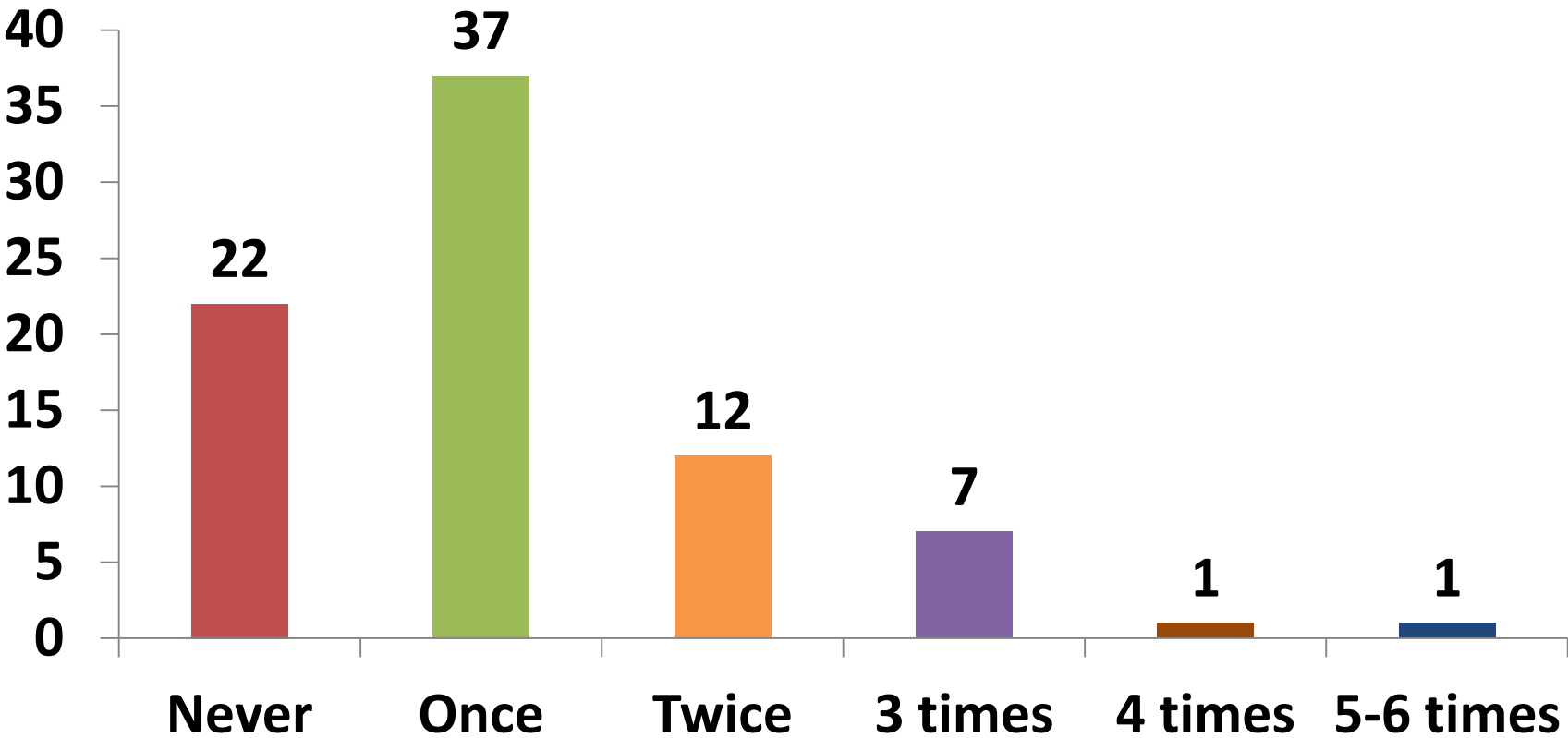
Did you talk to anyone?		Did the following HCPs ask you?	
	No		No
Anyone	61%		
GP	0	GP	0
Public Health Nurse (PHN)	0	PHN/ Midwife	0
Midwife	0		

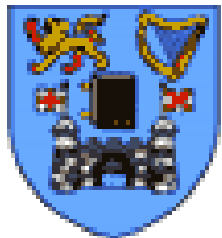


Since birth Visits to GP



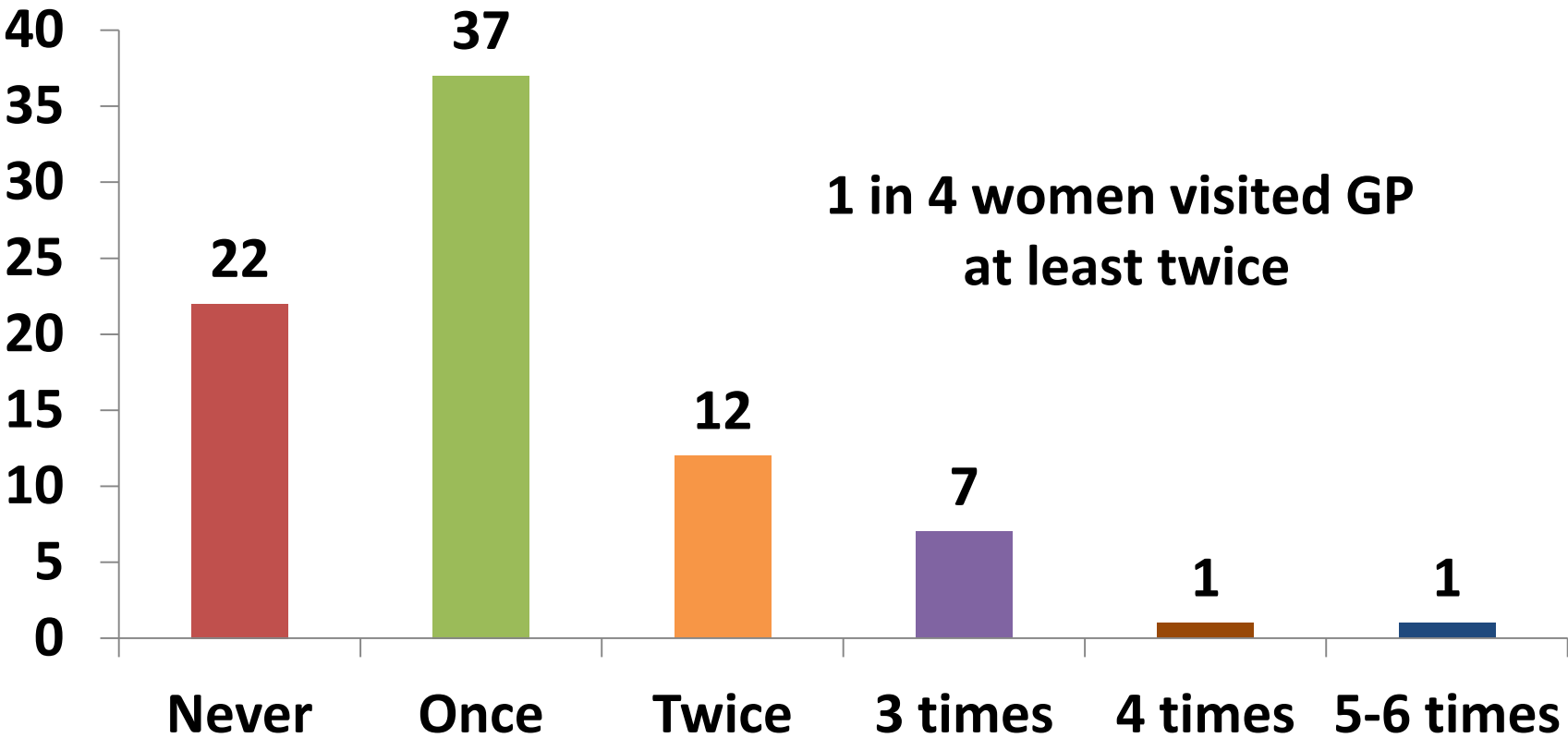
Number of visits to GP about your own health

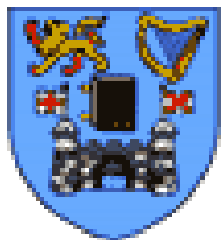




Since birth Visits to GP

Number of visits to GP about your own health (n = 80)





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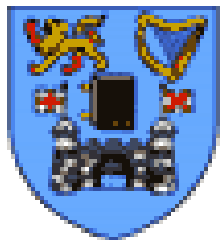
So what can we learn from these data?



Interpret data with caution as these findings are preliminary



However, analysis of data from these 831 antenatal and 102 postpartum women shows that...



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So what can we learn from these data?

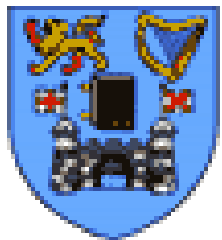


More than 1 in 5 participants experienced some degree of SUI before pregnancy

1 in 3 participants experienced some degree of SUI at the start of pregnancy

2 in 3 participants who had a normal birth experienced some degree of SUI 3 months postpartum

...and most did not talk to a healthcare professional



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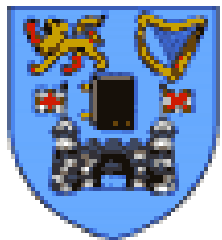
So what can we learn from these data?



1 in 12 participants experienced soiling before pregnancy

1 in 8 participants who had a normal birth experienced soiling 3 months postpartum,

...and most did not talk to a healthcare professional



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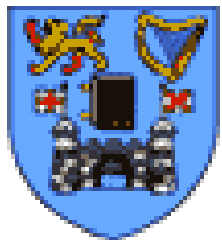
So what can we learn from these data?



More than 1 in 10 participants experienced depression before and during pregnancy

1 in 6 participants who had a normal birth experienced depression 3 months postpartum

...and most did not talk to a healthcare professional



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So what can we learn from these data?

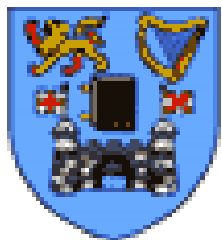


More than 1 in 5 participants experienced dyspareunia before pregnancy

1 in 6 participants experienced dyspareunia at the start of pregnancy

1 in 6 participants who had a normal birth experienced dyspareunia 3 months postpartum

...and most did not talk to a healthcare professional

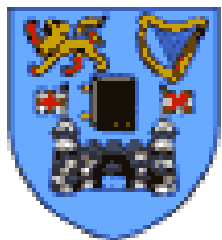


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The message

Whilst UI, soiling, depression and dyspareunia remains undisclosed and not discussed women who could become continent, happy and have pain free sexual intercourse will continue to be incontinent, unhappy and in pain during intimate relationships

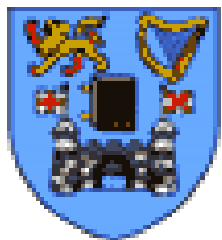


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The relevance

- 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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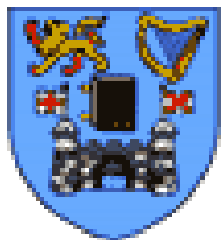


The final message

Whilst UI, soiling, depression and dyspareunia remains undisclosed and not discussed women who could become continent, happy and have pain free sexual intercourse will continue to be incontinent, unhappy and in pain during intimate relationships

These problems, whilst common, are not normal and can be treated.

We need to ask women about these health problems.



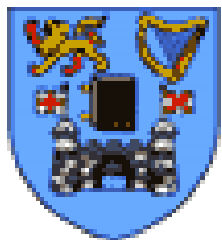
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The MAMMI Study (UI Strand)



- **Future work**
 - **The MAMMI study** is ongoing
 - Sample size is 1600 (2000 with Galway site)
 - Detailed analyses are required before data are truly understood and statistical significance and associations are ascertained
 - Only then can modifiable factors be identified

<http://www.mammi.ie/>



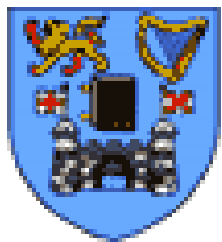
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The MAMMI Study (UI Strand)



Thanks to the conference organizers and scientific committee for the opportunity to present

<http://www.mammi.ie/>



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The MAMMI Study (UI Strand)



- **Sincerest thanks to**
 - **The women** (all women including those who are not taking part but who read the information)
 - The **midwives** and **midwifery students** and other **colleagues** who are supporting the MAMMI study
 - My supervisors **Professor Cecily Begley** and **Professor Mike Clarke**
 - My colleagues **Margaret Carroll, Deirdre O'Malley, Francesca Wuytack**
 - **Rebekah Maguire** and **Sophie Clare** who worked with us on the MAMMI study in summer 2012
 - The **Health Research Board (HRB)** for funding the MAMMI study (UI) strand
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