#### Measuring and Improving Vitamin D awareness and promotion for pre and postnatal women across Greater Manchester 2013

The audit findings

Deborah Lee Lucy Wilcoxon



#### Introduction

- First audit took place in 2011
  Findings:
  - poor knowledge
  - very little evidence of promotion of vitamin D to pre- and postnatal women
- Number of recommendations made to participating trusts
- Awarded further funding in 2012 to re-audit.

### Methodology

#### Provider services Audit

- Establish policies, personnel and training at trust level
- Staff Survey
  - Determine knowledge and reported current practice of staff
- Case note audit
  - Establish current practice through documentation in case notes

### **Standards**

Standard		
1.	Midwives and health visitors to receive training on vitamin D promotion and supplementation	100%
2.	Pre and postnatal women to undergo a risk assessment to identify risk factors for vitamin D deficiency	100%
3.	Pregnant women to be verbally advised of the importance of vitamin D and suitable supplementation at the booking appointment with the midwife	100%
4.	Postnatal women verbally advised on the importance of vitamin D and suitable supplementation at the initial appointment with the health visitor	100%
5.	Pre and postnatal women to be given literature containing information on vitamin D	100%

## Participating trusts

	Repeating trusts (2011 & 2013)	New trusts (2013)
~	Wrightington, Wigan and Leigh NHS FT (survey only in 2011)	University Hospital of South Manchester NHS FT
vifer	Stockport NHS FT	
Midwifery	Royal Bolton NHS FT (survey only in 2011)	
	Central Manchester NHS FT	
	NHS Manchester	NHS Bolton
alth ting		NHS Bridgewater
Health Visiting		NHS Stockport
		NHS Salford

### **Provider services audit**

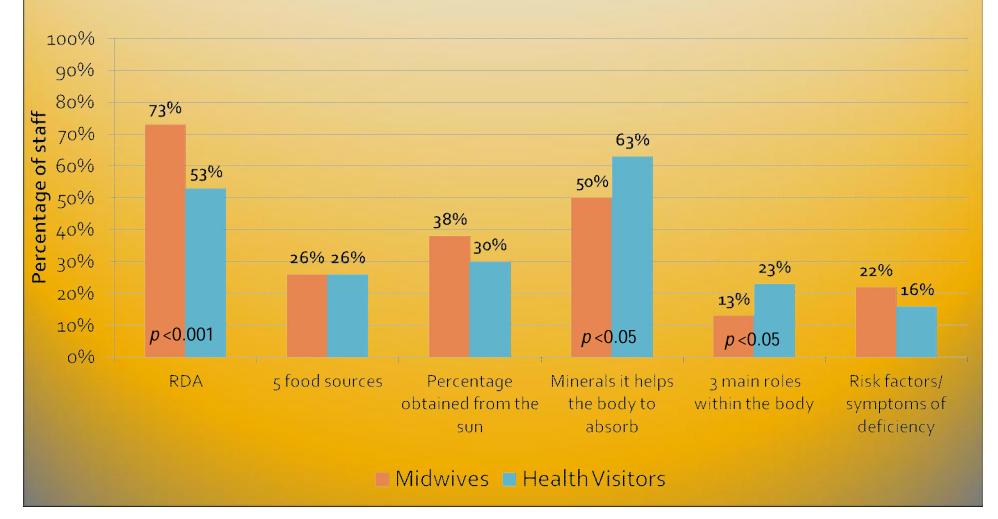
	Trust	Policy in place	Team/ coordinator in place	In-house leaflet	Information distributed	Training provided
	Central Manchester FT*	<b>√</b>	×	×	✓	$\bigcirc$
λ	Stockport FT*	×	×	$\bigcirc$	$\checkmark$	$\bigcirc$
Midwifery	Royal Bolton FT	×	×	×	×	×
Mid	South Manchester FT	×	×	×	$\checkmark$	×
	Wrightington, Wigan and Leigh FT*	×	×	$\oslash$	✓	×
_	NHS Bolton	$\checkmark$	×	×	$\checkmark$	✓
iting	NHS Bridgewater	×	$\checkmark$	×	$\checkmark$	✓
Health visiting	NHS Manchester*	$\bigcirc$	×	c x	×	$\bigcirc$
Healt	NHS Salford	×	$\checkmark$	×	×	✓
-	NHS Stockport	×	×	×	$\checkmark$	✓
*Repeating trusts			2011			

#### Staff Survey – response rate

- Response Rate:
   A total of 237 midwives and 121 health visitors from 10 healthcare providers participated in the survey.
- This give an overall response rate of
  - 22% for Midwives
  - 20% for Health Visitors
  - Response rates ranged from 9% to 83% at individual Trusts

#### Staff Survey - Vitamin D Knowledge

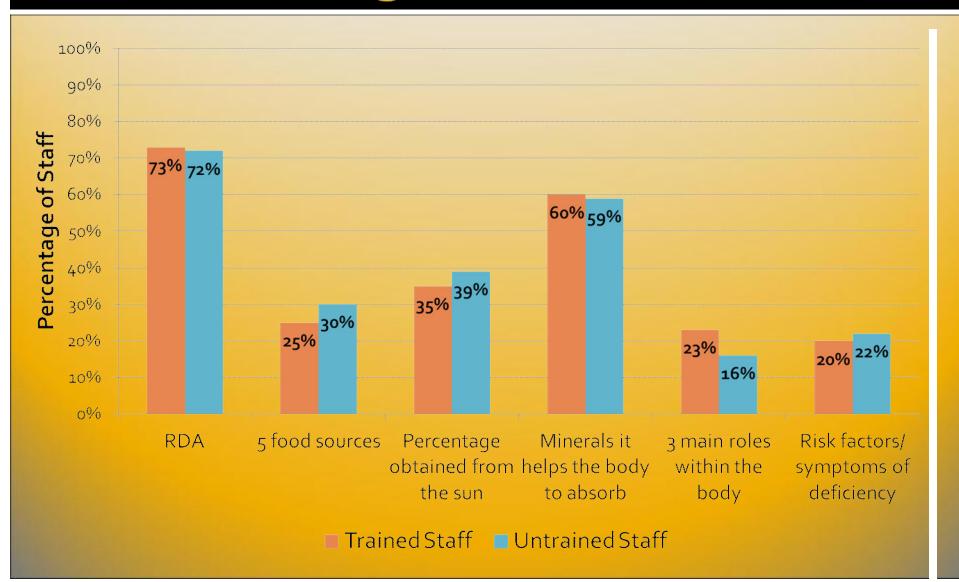
#### Staff knowledge of vitamin D was relatively poor.



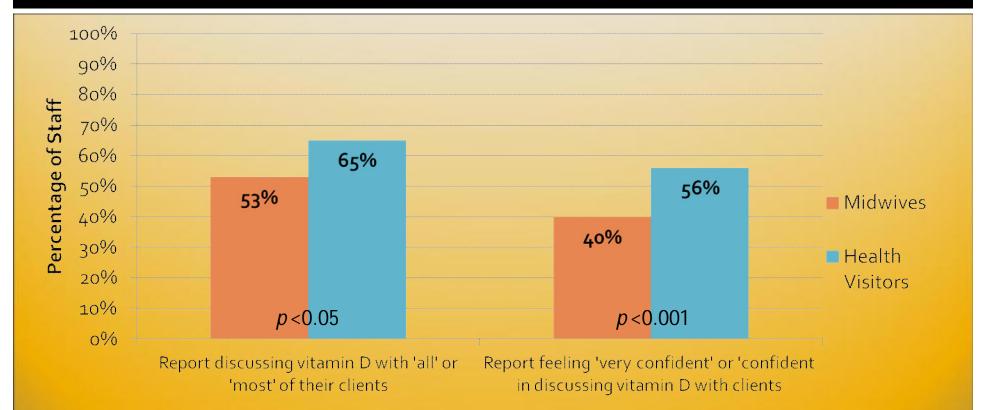
# **Training Rates**

Trust	Percentage attended vitamin D training within the last year
Central Manchester NHS FT	6%
Stockport NHS FT	20%
University Hospital South Manchester NHS FT	17%
Royal Bolton NHS FT	17%
Wrightington, Wigan and Leigh NHS FT	24%
TOTAL Midwives	14%
NHS Bolton	38%
NHS Bridgewater	42%
NHS Manchester	93%
NHS Salford	53%
NHS Stockport	36%
TOTAL Health Visitors	47%

#### Staff Survey - Vitamin D Training and Knowledge

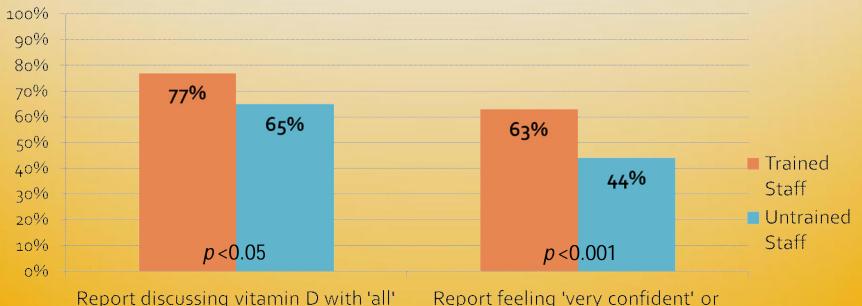


### Staff Survey – Vitamin D Practice



- Main reason for not discussing with 'all' clients:
  - MW a lack of risk factors presented by the client (28%)
  - HV lack of training or confidence (33%)

#### Staff Survey – Practice and Training



eport discussing vitamin D with 'all' or 'most' of their clients clients 'confident' or

- Main reason for not discussing with 'all' clients:
  - Trained staff– lack of knowledge/confidence (29%)
  - Untrained staff lack of risk factors presented (32%)

#### Staff Survey – Healthy Start Scheme

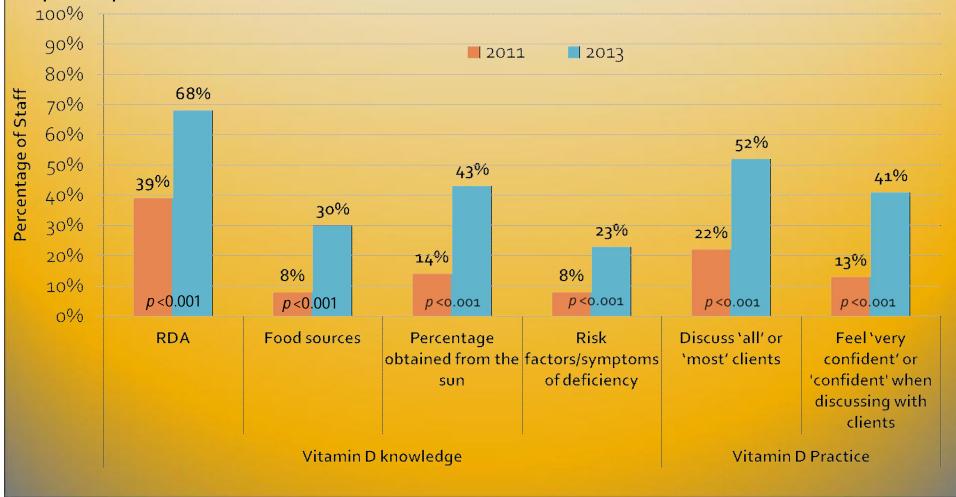
- Healthy Start scheme vouchers exchanged for vitamin supplements
- 72% of HV discuss Healthy Start with 'all' or 'most' of their clients, compared to 43% of MW.
- 69% of trained staff discuss Healthy Start with 'all' or 'most' of clients compared to 52% of untrained staff
- Client not considered eligible most common reason for not discussing the Healthy Start Scheme.

#### **Comparison of repeated Trusts**

- Trusts that took part in the staff survey for both 2011 audit and the 2012/2013:
  - Midwifery:
    - Central Manchester NHS Foundation Trust
    - Royal Bolton Hospital NHS Foundation Trust
    - Stockport NHS Foundation Trust
    - Wrightington, Wigan and Leigh NHS Foundation Trust
  - Health Visiting:
    - NHS Manchester

### **Comparison of repeated Trusts**

Data from responses to knowledge and practice questions across Trusts who participated in both the 2011 and 2013 audit.



### Summary of staff survey

- Knowledge is relatively poor and is not shown to improve through recent training.
- HV and trained staff discuss Vitamin D and Healthy Start more with 'all' or 'most' clients and feel more confident in doing so.
- Overall, Trusts who participated in the 2011 audit improved in both their vitamin D knowledge and practice in 2013.

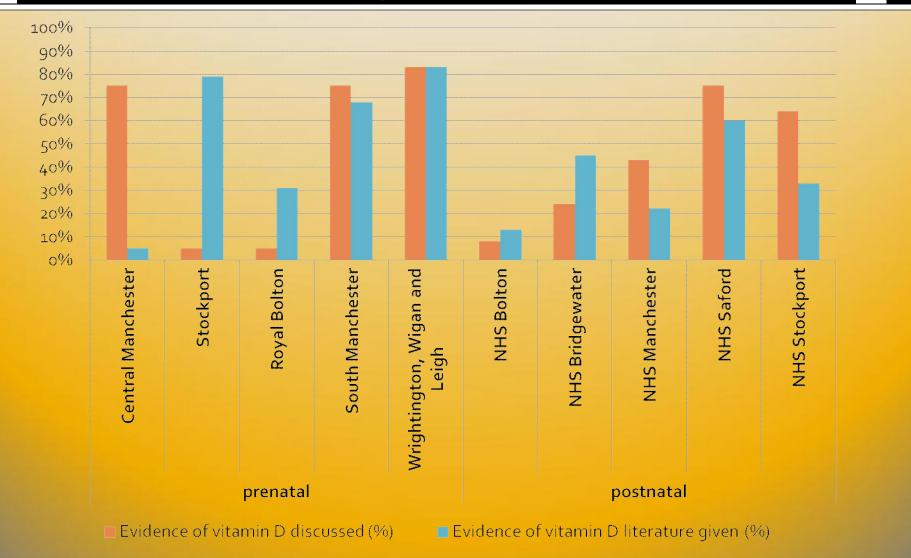
#### Case note audit - sampling

- Requested sample of 100 pre/postnatal women per trust
- Sample to be selected from women who gave birth between Oct 2011 and Mar 2012
- However, miscommunication led to women being sampled from bigger cohort – Jan 2011 and Jan 2013

### **Case note audit - Sample**

	Trust	n	Average age of sample
	Central Manchester NHS FT	102	29
_	Stockport NHS FT	96	29
lata	Royal Bolton NHS FT	84	27
Prenata	University Hospital South Manchester NHS FT	100	30
-	Wrightington, Wigan and Leigh NHS FT	100	27
	TOTAL	482	28
	NHS Bolton	106	28
-	NHS Bridgewater	104	30
Postnatal	NHS Manchester	28	30
osti	NHS Salford	97	29
<u>م</u>	NHS Stockport	73	31
	TOTAL	408	29

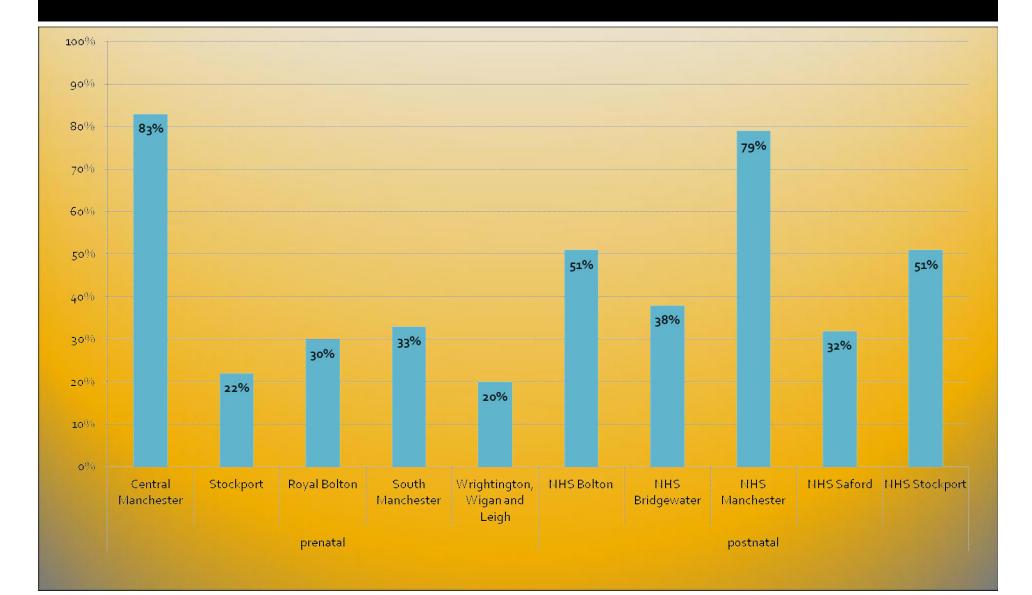
### Evidence of verbal/written vitamin D information given to all women



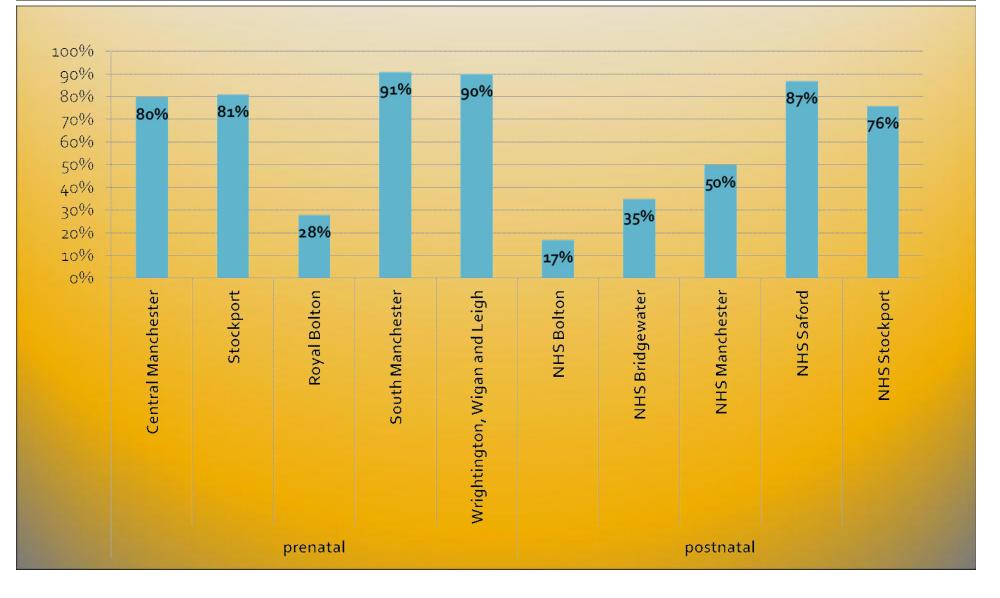
#### **Evidence of risk factors**

- Risk factors:
  - Ethnicity: women of South Asian, African, Caribbean or Middle Eastern descent
  - Medical: personal/family history of bone disorders, coeliac disease, Crohns disease, bone deformity, multiparity (short spacing between pregnancies)
  - BMI: women with a BMI of 30 or above at booking (prenatal only)
  - Breastfeeding: women who are exclusively breastfeeding (postnatal only)

#### **Evidence of at least one risk factor**



#### Evidence of vitamin D information given to those identified as having a further risk factor for vitamin D deficiency



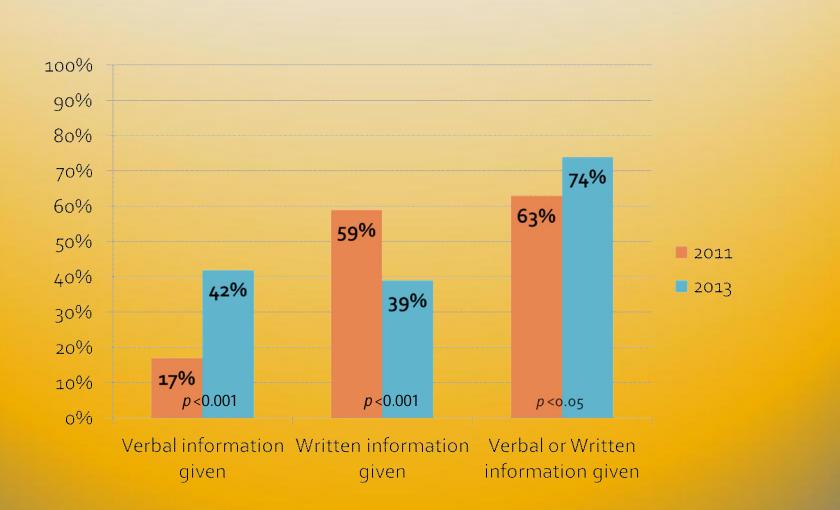
#### Comparison of 2011 and 2013 audit

- 3 trusts participated in both 2011 and 2013 case note audits:
  - Midwifery
    - Central Manchester FT
    - Stockport FT
  - Health visiting
    - NHS Manchester

#### Comparison of 2011 and 2013 audit

No significant differences between the samples for age and ethnicity
 No significant differences in the number of risk factors except for BMI – large increase at CMFT (26% → 74%)

#### Comparison of 2011 and 2013 audit



#### Summary of case note audit

- Some trusts performing better than others.
- Evidence of 65% receiving some form of information
- Evidence for at least one risk factor of vitamin
   D deficiency present in 41%...
- ...of which 62% received some form of info
- Those who repeated the audit appear to have made significant improvements to practice.

#### **Standards achieved**



Standard 1: 100% midwives and health visitors to receive training on vitamin D promotion and supplementation.



Standard 2: 100% Pre and postnatal women to undergo a risk assessment to identify risk factors for vitamin D deficiency



Standard 3: 100% of pregnant women verbally advised on the importance of vitamin D and suitable supplementation at the booking appointment.



Standard 4: 100% of postnatal women verbally advised on the importance of vitamin D and suitable supplementation at the initial appointment.



Standard 5: 100% of women to be given literature relating to the importance of vitamin D and suitable supplementation for pre and postnatal women.

#### Limitations

- Poor response rate for staff survey may not be representative
- Women sampled from bigger than requested cohort for the casenote audit (2011-2013 rather than Oct 2011 – Mar 2012)
- Possibility of inaccurate documentation
- Evidence of written info given not clear
- Training frequency and level of training unclear

#### Conclusion

- Standards not achieved all women to receive verbal and written information on vitamin D
- Even those at a greater risk do not always receive verbal/written information
- Whilst each of the risk factors are routinely assessed, they are not being linked to vitamin D deficiency
- However, policy and practice improvements have been made in trusts repeating audit.

#### Recommendations

- 1. Documentation of verbal and written literature on vitamin D required in all case notes
- 2. Training programmes to be rolled out to all staff
- 3. Routine assessment women with risk factors need to be flagged up.
- 4. Women with further risk factors to be offered further screening for vitamin D deficiency???



# Any questions?