

CUBA

an objective web-based method of
assessing breastfeeding knowledge

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Background

- Public health target of increasing breastfeeding by 2% per annum (DH 2002)
- Yet the most recent infant feeding survey data show that 76% mothers initiated breastfeeding in the UK in 2005 (Bolling et al 2007) but almost a quarter had stopped by 2 weeks and more than half by 4 months
- Most common reasons for giving up included painful breasts/nipples and insufficient milk
- Most reasons given are preventable by good breastfeeding support

Background

- Best Start Breastfeeding RCT in 2001-2 investigated the effect of a postnatal “hands off” midwifery intervention on the duration of breast-feeding (Wallace et al 2006)
- Midwives’ knowledge of positioning and attachment was assessed during the trial, using a modified version of the Breastfeeding Support Skills Tool (BeSST) (Hall Moran et al 2000)

Background

- Large variation found in knowledge scores of 108 midwives in four maternity units within three NHS Trusts
- Significant increases in knowledge scores were found following training (Law et al 2007)
- Further analysis showed confusion between terms positioning and attachment even after the training (Inch et al 2003)
- Widespread need for more practice-based training and evidence-based policies (Wallace & Kosmala Anderson 2007)

Developing the CUBA

- Tool for the assessment of training needs and effectiveness of training
- Helpful for evaluation of training and courses to help meet BFI standards
- Helpful for research in assessing experimental training interventions
- Essential knowledge areas identified to support Baby Friendly principles
- Multiple choice format chosen to ensure objectivity and reliability

Developing the CUBA

- Includes video footage and stills to assess observational and problem-solving skills within realistic practice scenarios
- Funding obtained from Spinner grant
- Web design company contracted
- Designed to be completed online with username and password supplied
- Working title “CUBA” - Coventry University Breastfeeding Assessment
- 50 questions originally in 7 sections

Developing the CUBA

- Designed for anyone providing direct support for breastfeeding mothers
- Instant confidential feedback provided to individuals with recommendations for study if needed
- Institutional report provides a summary of the knowledge levels of identified groups of staff
- Implications of the findings included
- Assists targeting of resources needed to address any deficits in knowledge

Coventry University

Breastfeeding Assessment

CUBA Questions

Value of Breastfeeding

Question 1 of 7

Which of the following has not been associated in published studies with giving breastmilk to the pre-term infant?

- Increased intelligence quotient (IQ)
- Reduced incidence of jaundice
- Optimal visual development
- Reduced incidence of necrotising enterocolitis

Save and go to the Next Question >>

Developing the CUBA

- Piloted with staff within a PCT and NHS Trust in the West Midlands region between July 2005 and July 2006 using original version with seven question categories



Coventry University
Breastfeeding Assessment



**Institutional Report on levels of breastfeeding
knowledge:**

**Report prepared for
Example PCT and NHS Trust**

Respondent characteristics:

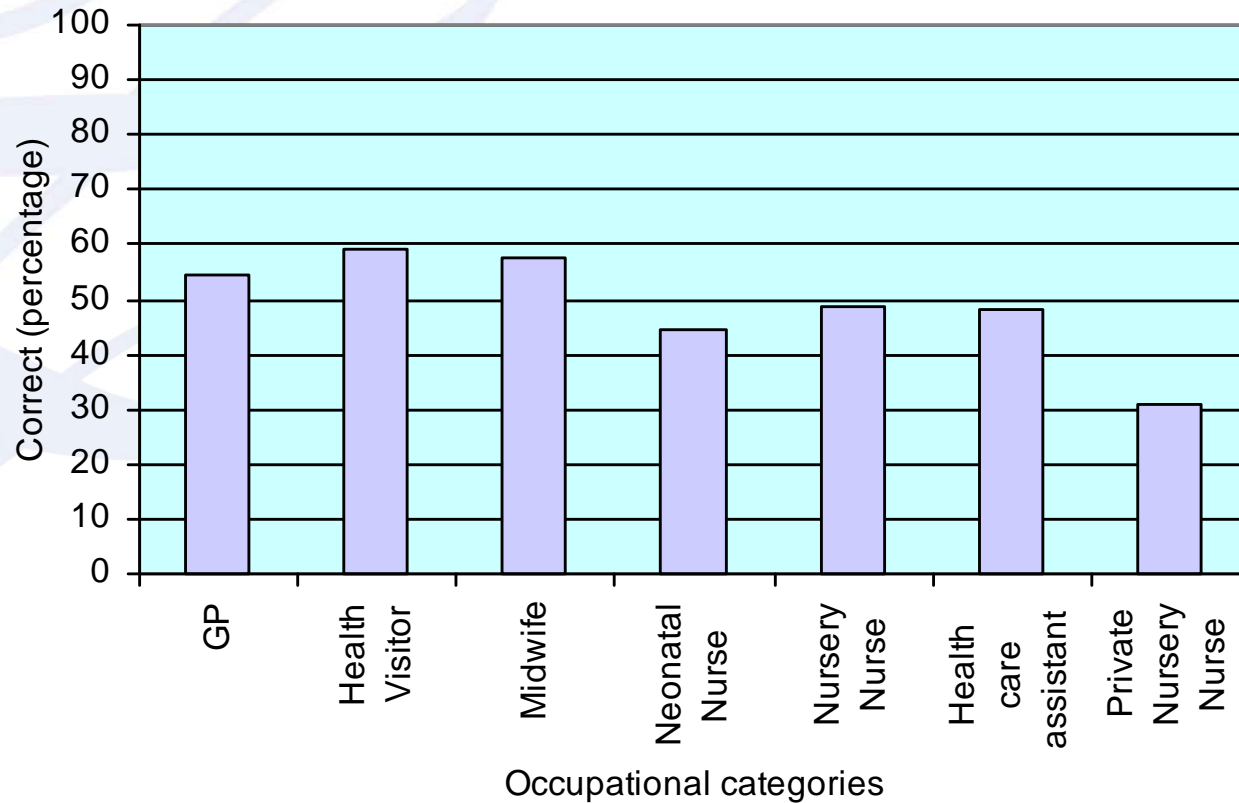
n=112

GPs	6
Health visitors	18
Midwives	46
Neonatal nurses	3
Nursery nurses	6
Health care assistants	3
Private nursery nurses	30
Total	112

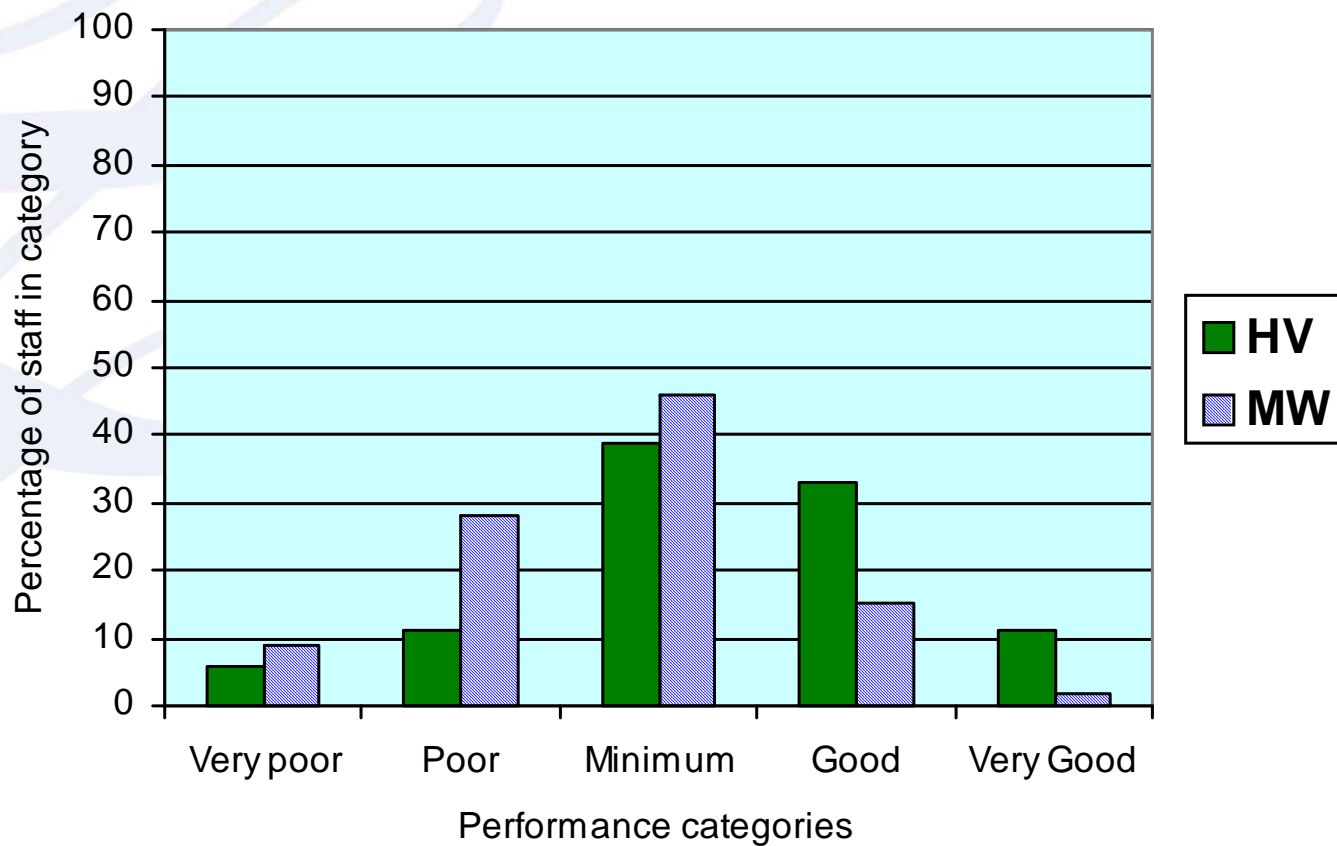
Overall comparison of occupational groups

- Significant differences were found between the groups in their overall scores ($F(6,105) = 51.25$, $p < .001$) using Anovas and post hoc Tukey.
- Private nursery nurses scored significantly lower than all other groups.
- Health visitors scored significantly higher than neonatal nurses and nursery nurses and
- Midwives scored significantly higher than neonatal nurses.
- All other groups scored similarly to each other.

Overall comparison of occupational groups



Health visitors and midwives: Value of breast milk



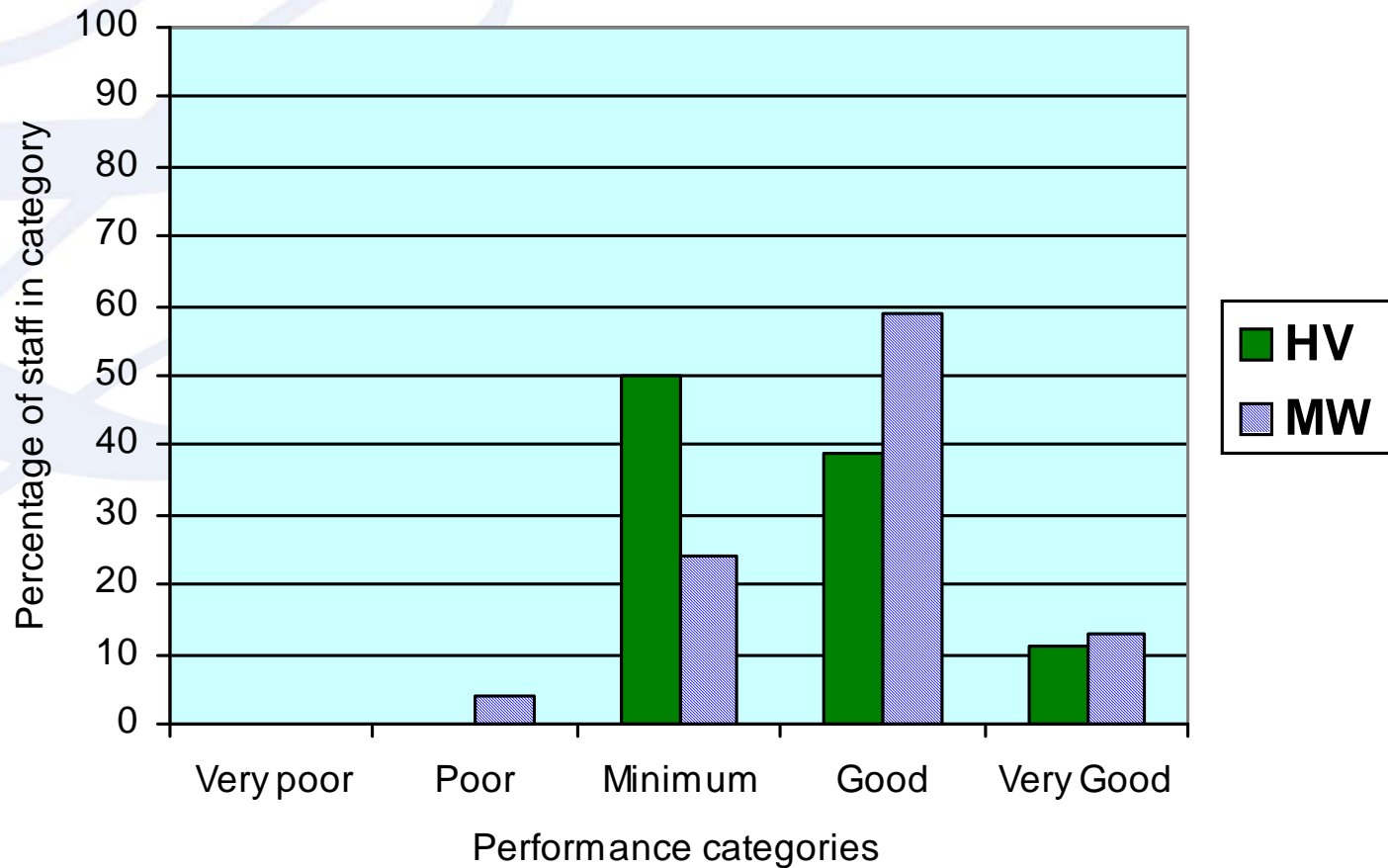
Value of breast milk: summary

- Overall 83% of the health visitors scored at minimum levels or above on the value of breast milk, with only 17% scoring poor or very poor.
- Performance of midwives was less good, with only 63% scoring at minimum levels of above and 37% scoring poor or very poor.

Value of breast milk: implications of results

- The results suggest that overall, the health visitors at Example PCT have reasonable knowledge levels on this subject.
- Levels of knowledge displayed by midwives are less good, with a much higher proportion displaying poor levels.
- Women using the service are likely to receive the necessary information and advice to enable them to make an informed choice regarding their chosen method of feeding.
- A small minority of health visitors and a larger group of midwives have poor knowledge levels and would benefit from training.
- A large proportion of staff have only minimum levels of knowledge and would benefit from improvement.

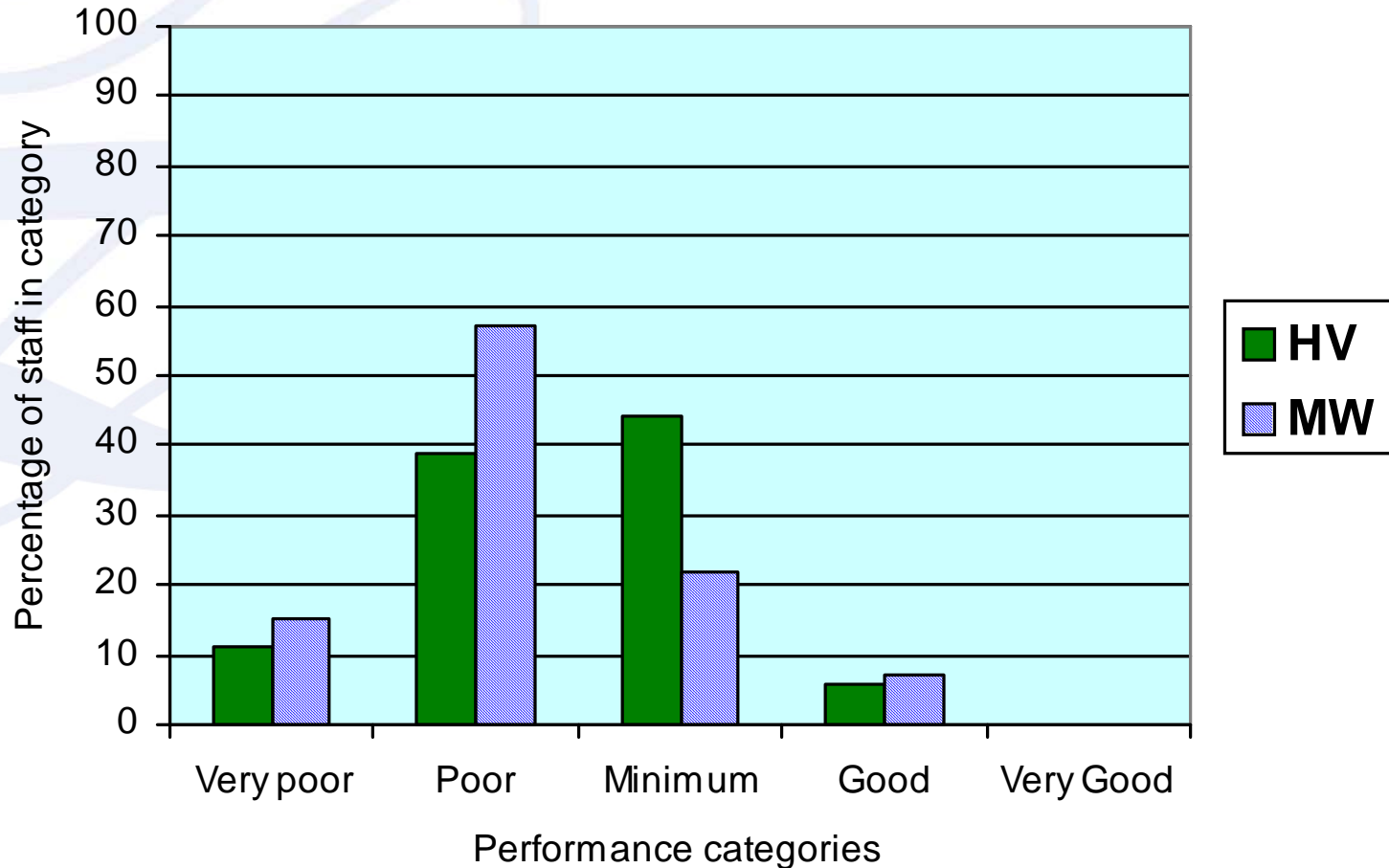
Anatomy and physiology



Anatomy and physiology

- The results suggest that overall, staff have reasonable knowledge levels in this subject.
- Women using the service are very likely to receive the necessary information and advice however a sizeable proportion of staff may be limited in the support they can give.
- A large proportion of health visitors have only minimum levels of knowledge and would benefit from topping up their knowledge levels. Some training needs remain to raise performance of those with minimum knowledge to the good standards of the rest of the staff.

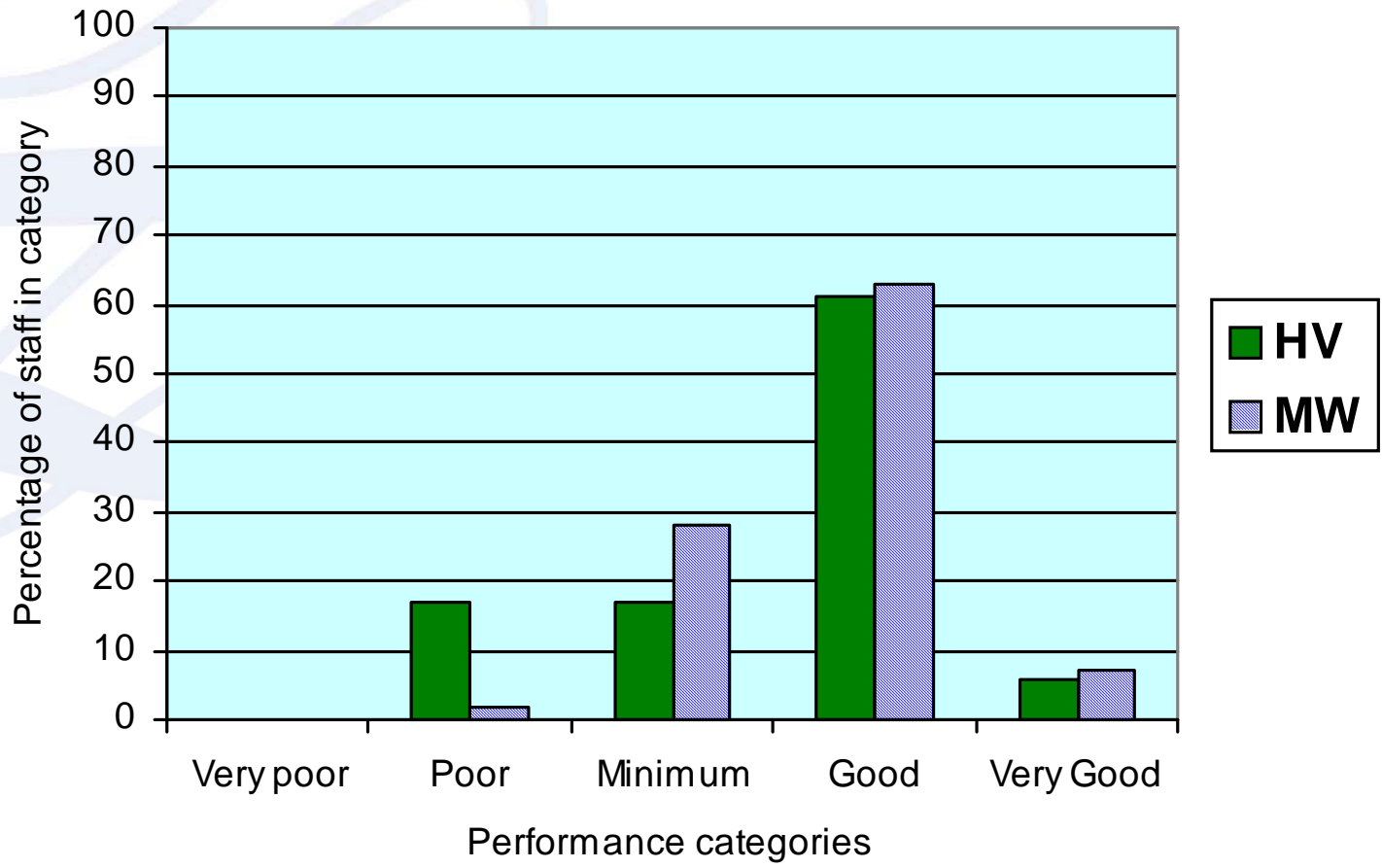
Positioning and attachment



Positioning and attachment

- A significant proportion of staff appear to have serious deficits in their knowledge levels in this area and will have difficulty giving appropriate advice to support breastfeeding.
- The variation in performance suggests a strong likelihood that staff may be giving conflicting and or incorrect help to mothers which may confuse mothers and reduce their confidence.
- Strategies that ensure that all staff have access to mandatory training are strongly recommended. The majority of staff require further training in this area.

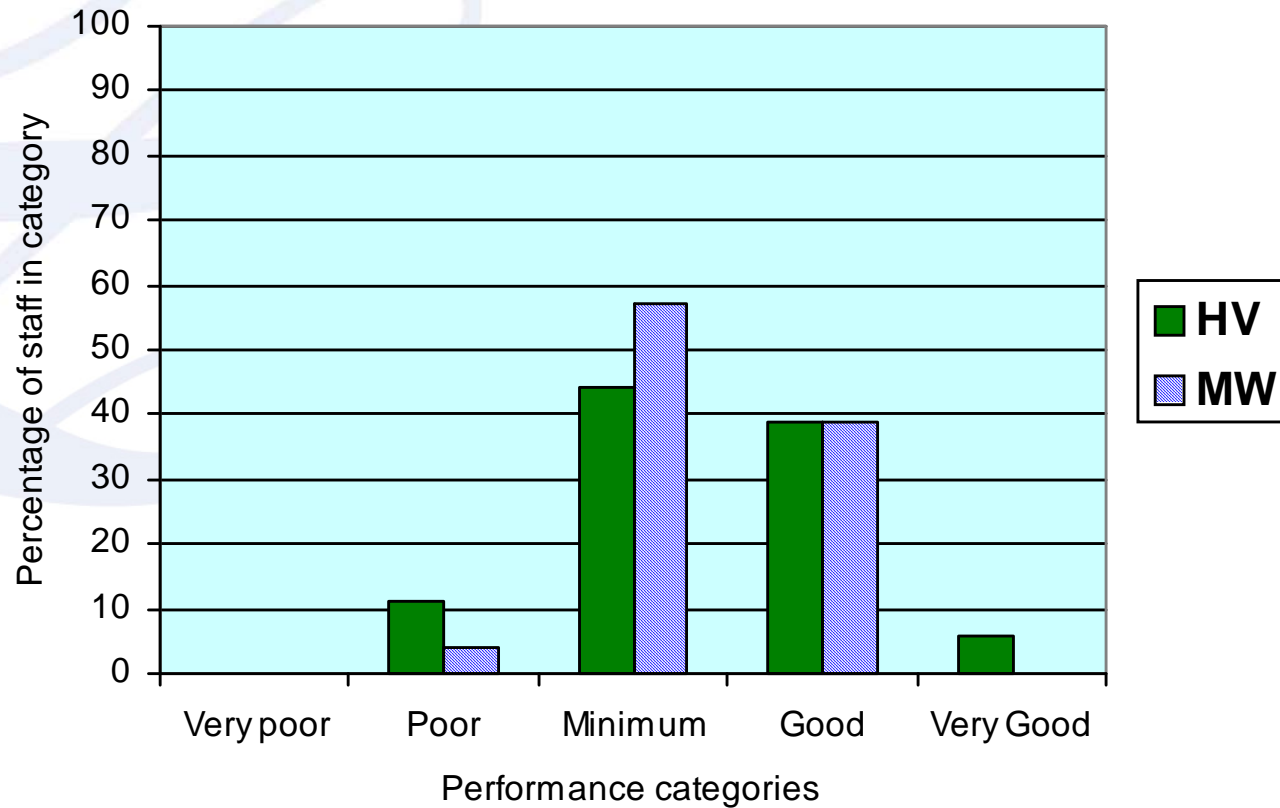
Practices



Practices

- The results suggest that the majority of staff have good knowledge of best practice in managing and advising mothers with common issues.
- Mothers using the service are highly likely to receive the necessary information and advice to enable them to maintain breastfeeding.
- Some staff may be giving inappropriate or inaccurate advice to mothers. Therefore training strategies that target the minority who score poorly or at minimum knowledge levels are recommended.

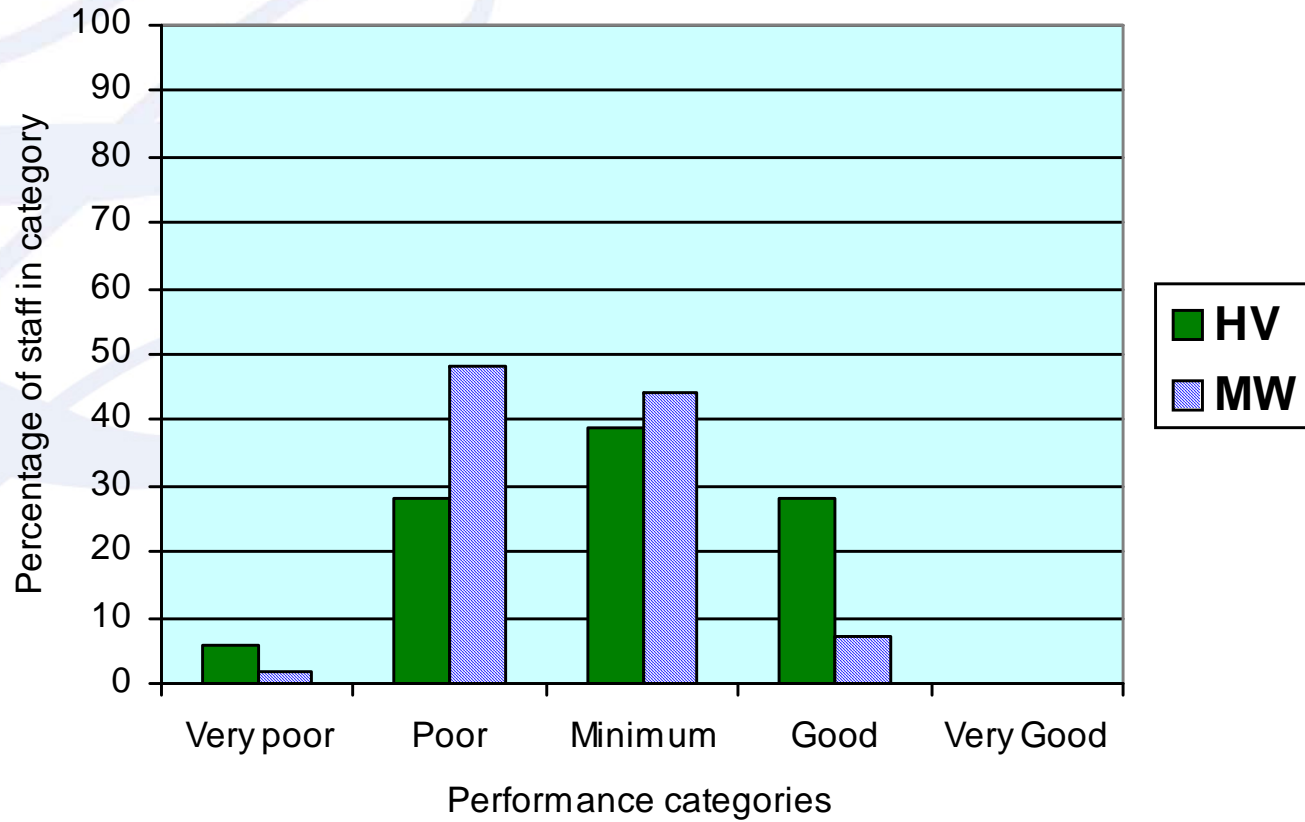
Management of problems



Management of problems

- The results suggest that overall staff have good knowledge levels in this subject.
- A large proportion of staff have only minimum levels of knowledge and they and the mothers in their care would benefit from these health visitors topping up their knowledge levels. Some training needs remain to raise performance of those with minimum knowledge to the standards of the rest of the staff.

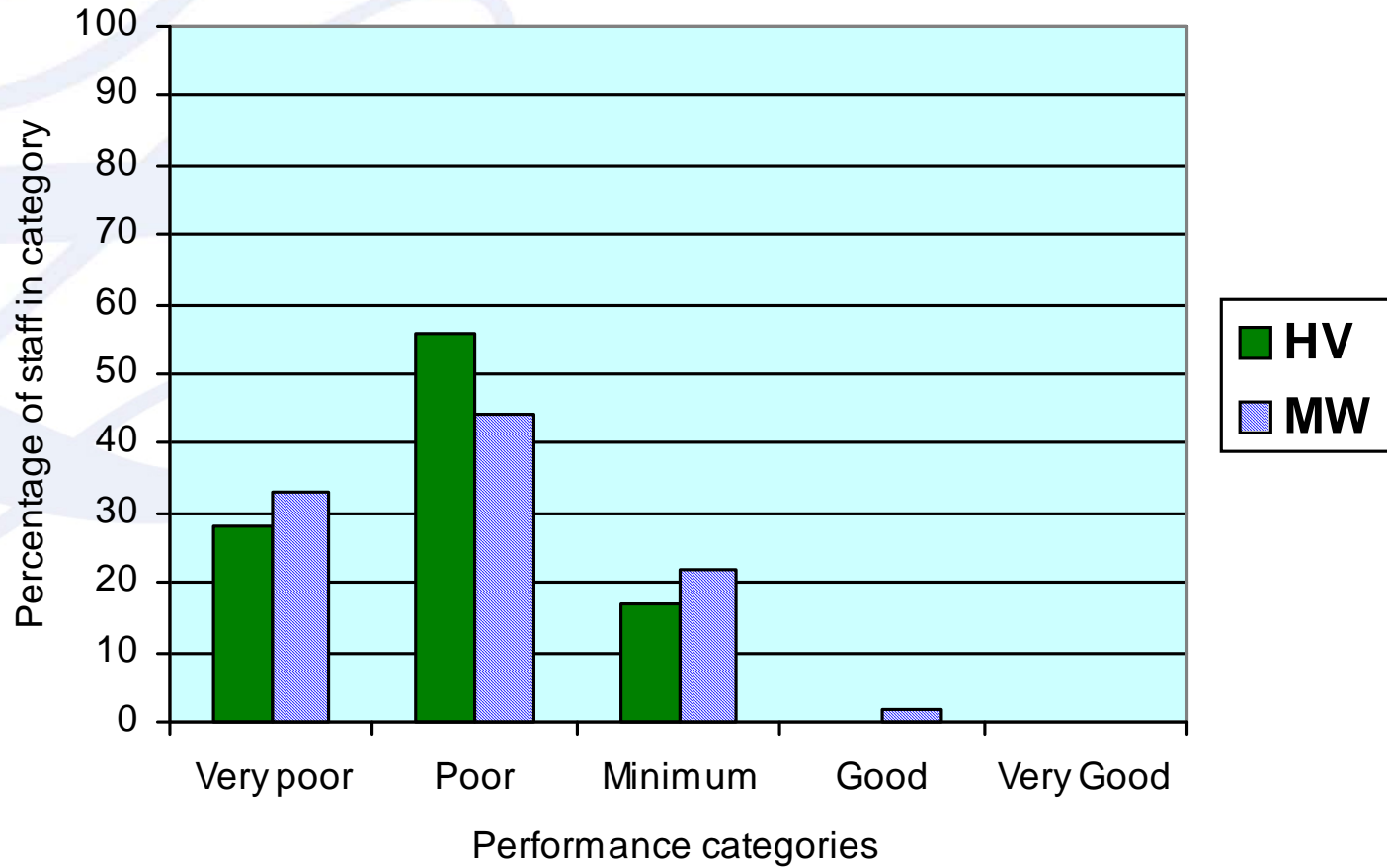
Challenges



Challenges

- The results suggest that overall many staff have serious deficits in their knowledge levels in this area.
- Breastfeeding mothers with some of the less frequently seen problems may not consistently receive the advice and support they need to initiate, establish and sustain breastfeeding.
- Staff may be giving inappropriate or inaccurate advice to mothers with some of the less frequently seen problems.
- Strategies that ensure that all staff have access to mandatory training are strongly recommended. There is a need for comprehensive training in this area for the majority of staff.

Initiatives



Initiatives

- The results suggest that overall the majority of staff have little knowledge in this area.
- Staff do not appear informed of some of the wider strategies and initiatives to support breastfeeding mothers and will be unable to pass this information and support on to mothers.
- Strategies that ensure that all staff have access to mandatory training are strongly recommended. All staff could benefit from training in this area.

CUBA

- Three new parallel versions being developed and piloted with student midwives
- Each item relates to a specific learning outcome to ensure validity
- Restructured into six knowledge areas with improved balance of questions

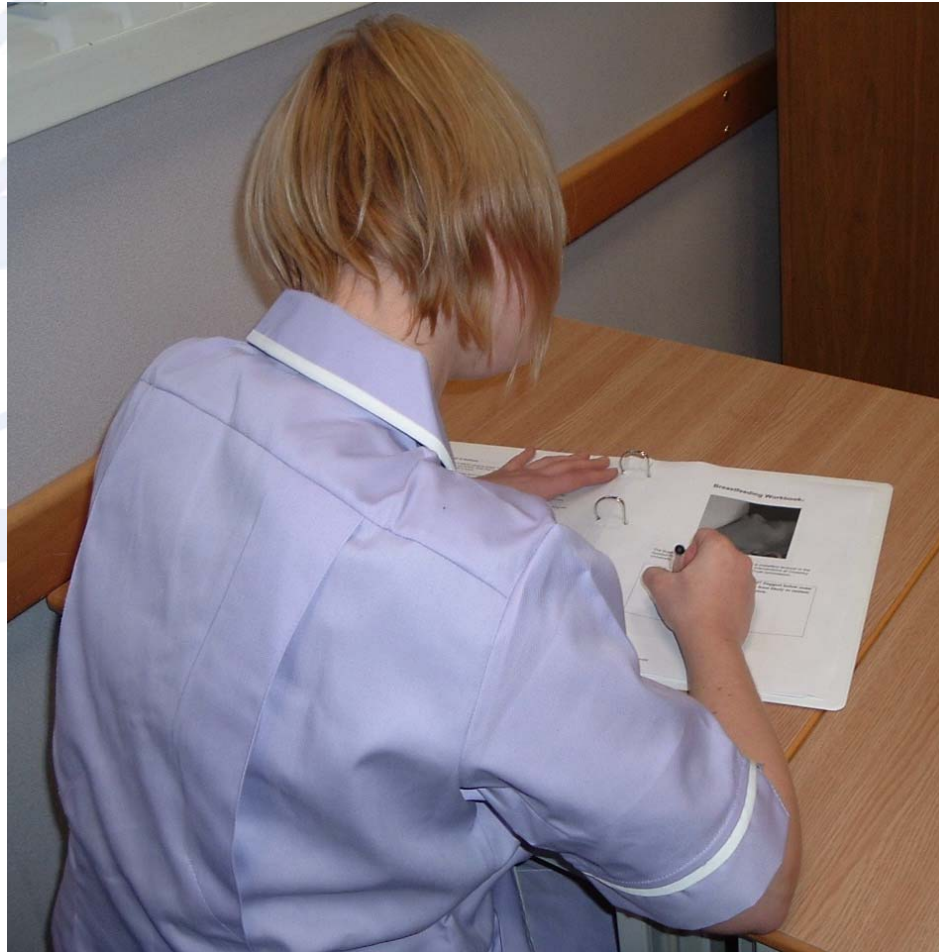
Revised CUBA sections

- The value of breast milk
- Who breastfeeds?
- Anatomy and physiology
- Positioning and attachment
- Breastfeeding difficulties and challenges
- Supporting breastfeeding

Breastfeeding workbook

- Developed alongside the CUBA
- Provides a flexible learning approach when training time and resources are scarce
- Requires approx 10 hours study time
- Learning activities include scenario-based questions and illustrated Breastfeeding Clinic case histories
- Marking guidelines provided or marking available
- Both CUBA and Breastfeeding Workbook are now commercially available: see leaflets or <http://www.healthbehaviourresearch.co.uk>

Breastfeeding workbook



References

- Bolling K, Grant, C, Hamlyn B, Thornton A (2007) *Infant Feeding 2005*. The Information Centre. Available free on-line at <http://www.ic.nhs.uk>
- Department of Health (2002) *Improvement, expansion and reform – the next 3 years: priorities and planning framework 2003-6*. London: DH
- Hall Moran V, Dinwoodie K, Bramwell R, Dykes F, Foley P (1999) The development and validation of the Breastfeeding Support Skills tool (BeSST) *Clinical Effectiveness in Nursing* 3, 151-155.
- Inch S, Law S, Wallace L, Hills, R (2003) Confusion surrounding breastfeeding terms “positioning” and “attachment”. *British Journal of Midwifery* 11, 148.

References

- Law SM, Dunn OM, Wallace LM, Inch SA (2007) Breastfeeding Best Start Study: training midwives in a “hands-off” positioning and attachment intervention. *Maternal and Child Nutrition* 3, 194-205.
- Wallace LM, Dunn OM, Alder EM, Inch S, Hills RK, Law SM (2006) A randomised-controlled trial of a postnatal midwifery intervention on breast-feeding duration. *Midwifery* 22, 262-273.
- Wallace L, Kosmala-Anderson J (2007) Training needs survey of midwives, health visitors and voluntary-sector breastfeeding support staff in England. *Maternal and Child Nutrition* 3, 25-39.