Since the 1970s the Department of Health has acknowledged the need to halt the decline in breast feeding initiation and duration by improving support for breast feeding during maternity care. In 1993, the Baby Friendly Hospital Initiative, a WHO/UNICEF initiative was introduced in the United Kingdom for this purpose. The initiative uses “Ten steps to successful breast feeding”, research based practices intended to promote and support breast feeding (table 1), backed by an external assessment and award programme. The Scottish Executive recommended the initiative to NHS maternity service providers in Scotland in 1994 and 1996.

Research evidence exists for the individual Baby Friendly Hospital Initiative steps, but so far there has been limited evaluation of the relation between the overall implementation of the initiative and breast feeding rates. A recent cluster randomised trial in Belarus of the effect of an experimental implementation modelled on the Baby Friendly Hospital Initiative showed that infants from intervention sites were significantly more likely than infants from control sites to be breast fed to any degree at 12 months, and to be exclusively breast fed at 6/7 days in Scottish maternity units, up to 2002.

The purpose of this study was to assess the effect of introducing the WHO/UNICEF UK Baby Friendly Hospital Initiative on rates of breast feeding at 6/7 days in Scottish maternity units, up to 2002.

METHODS
Postal questionnaires were sent in March 2000 and May 2001 to the midwife with responsibility for infant feeding at 33 Scottish maternity units with 50 or more births per annum. Information was collected on whether or not the hospital was participating in the Baby Friendly Hospital Initiative, what stage had been reached in the accreditation process (working towards accreditation but no award yet, certificate of commitment, UK standard award, and breast feeding at 7 days postnatal age. Results: Babies born in a hospital with the UK Baby Friendly Hospital Initiative standard award were 28% more likely to be exclusively breast fed at 7 days of postnatal age than those born in other maternity units after adjustment for mother’s age, deprivation, hospital size, and year of birth. From 1995, breast feeding rates had increased significantly faster in hospitals with Baby Friendly status by 2002: 11.39% (95% confidence interval 10.35 to 12.43) v 7.97% (95% confidence interval 7.21 to 8.73).

Conclusion: Being born in a hospital that held the award increased the chance of being breast fed. All maternity units should be encouraged to undertake the significant strategic and practical changes required to achieve UK Baby Friendly Hospital Initiative standard status.
Table 1  The ten steps to successful breast feeding in the United Kingdom

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have a written breast feeding policy that is routinely communicated to all healthcare staff.</td>
</tr>
<tr>
<td>2</td>
<td>Train all healthcare staff in the skills necessary to implement the breast feeding policy.</td>
</tr>
<tr>
<td>3</td>
<td>Inform all pregnant women about the benefits and management of breast feeding.</td>
</tr>
<tr>
<td>4</td>
<td>Help mothers initiate breast feeding soon after birth.</td>
</tr>
<tr>
<td>5</td>
<td>Show mothers how to breast feed and how to maintain lactation even if they are separated from their babies.</td>
</tr>
<tr>
<td>6</td>
<td>Give newborn infants no food or drink other than breast milk, unless medically indicated.</td>
</tr>
<tr>
<td>7</td>
<td>Practice rooming-in, allowing mothers and infants to remain together 24 hours a day.</td>
</tr>
<tr>
<td>8</td>
<td>Encourage breast feeding on demand.</td>
</tr>
<tr>
<td>9</td>
<td>Give no artificial teats or dummies to breast feeding infants.</td>
</tr>
<tr>
<td>10</td>
<td>Foster the establishment of breast feeding support groups and refer mothers to them on discharge from the hospital or clinic.</td>
</tr>
</tbody>
</table>

The ten steps to successful breast feeding in the United Kingdom.

RESULTS

Women giving birth in Scottish hospitals from 1995 to 2002 were 28% (OR = 1.28, 95% CI: 1.24 to 1.31) more likely to be breast feeding at 7 days if they gave birth in a hospital with the UK Baby Friendly Hospital Initiative standard award. Table 2 shows a comparison of the data before and after adjustment for Carstairs deprivation category, mother’s age, number of births at hospital and year of birth. The difference is significant, and remains significant after adjustment for the confounding variables above.

<table>
<thead>
<tr>
<th>Breast feeding</th>
<th>Yes</th>
<th>No</th>
<th>% Breast</th>
<th>OR</th>
<th>95% CI</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK standard award</td>
<td>19418</td>
<td>19922</td>
<td>49.4</td>
<td>1.34</td>
<td>1.32 to 1.37</td>
<td>1.28</td>
<td>1.24 to 1.31</td>
</tr>
<tr>
<td>Certificate of commitment</td>
<td>46256</td>
<td>60207</td>
<td>43.4</td>
<td>1.06</td>
<td>1.05 to 1.08</td>
<td>1.04</td>
<td>1.02 to 1.06</td>
</tr>
<tr>
<td>No accreditation</td>
<td>121668</td>
<td>167785</td>
<td>42.0</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total births</td>
<td>187342</td>
<td>247914</td>
<td>43.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Adjusted for Carstairs deprivation category, mother’s age, number of births at hospital and year of birth.

Figure 1  Distribution of Carstairs deprivation category for those Guthrie cards for babies born in 1997 with postcode completed by the midwife (83%) and after determination of the absent postcodes from the address on the Guthrie card (100%).

DISCUSSION

This study shows a significant association between the achievement of the UK Baby Friendly standard award and higher breast feeding rates at 7 days. Also, maternity hospitals that had received the UK Baby Friendly standard award by 2002 had a significantly larger increase in breast feeding rate from 1995 to 2002 than other maternity units. However, we cannot be sure that this association is solely attributable to UK Baby Friendly status. Most NHS boards in Scotland have a breast feeding strategy, and in many areas a number of other initiatives, such as peer support for breast feeding, advertising campaigns, and training for primary care staff have also been introduced.14 We suggest our study be repeated over time to confirm the association we have identified.

We have not considered the process of the intervention or attempted to explain the effect of individual components. However, it is clear that a certificate of commitment (table 2), which involves committing to the Baby Friendly award process over a finite period, did little in itself to change breast feeding rates. We endorse the call for high quality evaluation.
of the effect of single and combined interventions to promote breast feeding, including women’s views of the service.15

Our study is the first in the United Kingdom to use routinely collected data to evaluate an intervention to promote breast feeding. It looks to be a useful method, avoiding the cost of data collection. Unfortunately, data were not available to us for feeding at later stages, as we used the Guthrie card system collected at about 7 days postnatal age. Data are collected routinely on breast feeding at birth, discharge from hospital, and at 10 days, 6 weeks, and 8 months which may allow the evaluation of health promotion interventions on initiation and duration of breast feeding. More work is required to ensure the use of standard breast feeding definitions and to validate large datasets. However, the potential is clear.

All maternity units should be encouraged to undertake the changes required to achieve the WHO/UNICEF UK Baby Friendly Hospital Initiative UK standard award in order to improve breast feeding rates and the health and wellbeing of mothers and babies.

ACKNOWLEDGEMENTS
We thank all Scottish maternity units who provided information about breast feeding promotion activities. We also thank SPARKS (SPort Aiding medical Research for KidS) for funds to support our work on the evaluation of interventions to promote breast feeding.

Authors’ affiliations
M Broadfoot, J Britten, D M Tappin, Paediatric Epidemiology and Community Health (PEACH) Unit, Department of Child Health, Royal Hospital for Sick Children, Glasgow G3 8SJ, Scotland, UK

J M MacKenzie, Scottish Newborn Screening Laboratory, Royal Hospital for Sick Children

Competing interests: none declared

REFERENCES
The Baby Friendly Hospital Initiative and breast feeding rates in Scotland

M Broadfoot, J Britten, D M Tappin and J M MacKenzie

Arch Dis Child Fetal Neonatal Ed 2005 90: F114-F116
doi: 10.1136/adc.2003.041558

Updated information and services can be found at: http://fn.bmj.com/content/90/2/F114

These include:

References
This article cites 6 articles, 1 of which you can access for free at: http://fn.bmj.com/content/90/2/F114#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Childhood nutrition (297)
- Infant nutrition (including breastfeeding) (241)
- Reproductive medicine (1433)
- Screening (epidemiology) (234)
- Screening (public health) (234)

Notes

To request permissions go to: http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to: http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to: http://group.bmj.com/subscribe/