Breastfeeding and lactation support: what is the evidence on cost effectiveness?

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Economic evaluation of 'breastfeeding interventions'

- Need for economic evaluation has been identified in systematic reviews
  - What are the economic benefits of breastfeeding?
  - How does increasing breastfeeding rank in 'efficiency' alongside other 'interventions' to improve the survival, health and development of infants
  - What are the most efficient ways to redress risk factors for premature weaning?

Breastfeeding: potential benefits & costs

Perspective	*Benefits*	*Costs*
Society and economy	Value of infant food production Environmental externalities/costs Health care costs for mother and baby Costs of mortality (lost lifetime production) Productive capacity of 'human capital'	Opportunity cost of women's time Costs of protecting breastfeeding from damaging institutional arrangements/practices and culture
Government, community, health care services	Lower incidence and treatment costs of ill health and chronic disease of mothers and babies Reduced abandonment/child abuse	Costs of maintaining institutions and training which enable breastfeeding Costs of 'marketing' breastfeeding in competition with artificial infant food producers
Industry and employers	Healthier so more productive current and future workforce More jobs and profits in lactation support services More jobs and profits in breastfeeding products	Employer costs of accommodating breastfeeding employees Fewer jobs and profits in health care services, agriculture and food processing and retailing
Family	Reduced health care costs for mother Reduced health care costs for baby Reduced food costs for baby Food security (quality/safety and availability) Child spacing	Reduced employment income of new mother Reduced mother time for unpaid work and care of other children Proximity of mother and infant Increased food needs of mother Sexual availability of mother/fewer babies
Mother	Reduced reproductive and other health risk Appropriate weight gain and loss during reproductive years Calming hormones and satisfaction of breastfeeding Child spacing Time savings for feeding of older infant	Proximity/"Tied down' by baby Reduced employment income of new mother Reduced leisure time of mother Reduced fertility Embarrassment at public breastfeeding
Baby	Nutrition Health/survival Time/development opportunities with mother Bonding hormones etc with mother Long term health and development Labour force productivity/earnings	Dependent on availability/proximity of mother

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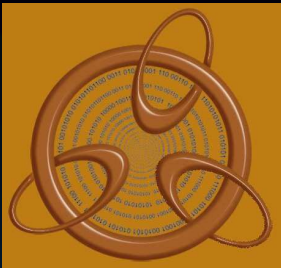

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Economic evaluation: where should we devote resources?

- Who are 'we' – perspective is important
  - Society
  - Health services funder
  - Hospital /health service provider
  - Mother family etc
  - Employers
- What 'resources' are we talking about –
  - Medical staff
  - Health facilities
  - Maternal time
  - Money
  - ?
- What outcomes do we prioritise?
  - Health?
  - Development?
  - Mortality?

Valuing breastfeeding benefits at market value – 'willingness to pay'

- Breastmilk is bought and sold on the Internet for about US$131 a litre
- US human milk banks sell it for around US$127 a litre; in Europe €130 per litre (i.e $A 153-222 per litre)
- US employment agencies hire wet nurses – in early 2007 at around US$1000 a week (about $A246 per litre). In China the wealthy reportedly hire wet-nurses for $10,000-25000 p.a
- A US company markets donated processed human milk for use in hospitals for premature babies. The price is now around US$1183 (A$1429) a litre.

Human milk supply, Australia 2008

= A$5.98 billion per year

Updated from Smith JP. Human milk supply in Australia. *Food Policy* 1999; 24:71-

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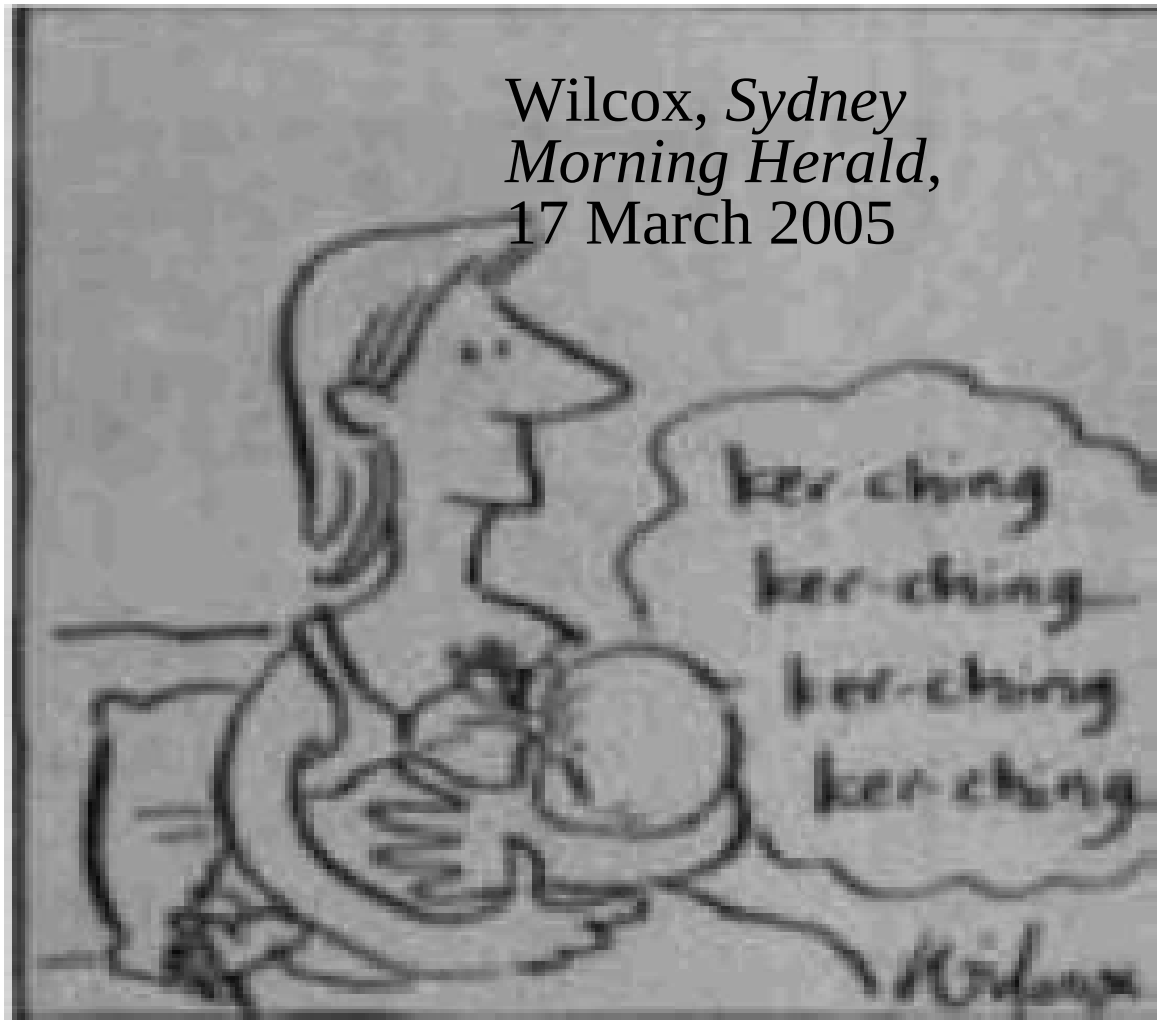
Is breastfeeding 'the mother of all cash cows'



Wilcox, *Sydney Morning Herald*, 17 March 2005

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Literature review: Is breastfeeding cost-effective

- A search via EconLit, Medline and Pubmed, Google Scholar, web of science and web of knowledge using keywords including breastfeeding or infant or child nutrition and cost or cost-effective or cost-effective analysis.
- Also examined recent systematic reviews of breastfeeding interventions
- Identified 12 papers which seemed from the title or abstracts to conduct cost effectiveness analyses of interventions with an outcome of increased breastfeeding.
  - A number undertook some kind of cost analysis eg basic cost collection, but inadequate information or standardisation to allow meaningful comparison with other health interventions.
  - mainly conducted from the perspective of health services funders and health service providers.
  - Few studies looked at time costs and out of pocket expenses to families.
- A 2009 UK study of breastfeeding interventions in neonatal units concluded
  - there were 'no economic evaluations that met the inclusion criteria' [of economic evaluation of promotional strategies for breastfeeding in neonatal units]

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Smith, J. P. and I. Mackenzie (2009). Economic evaluations of interventions to improve breastfeeding. Public Health Association of Australian Annual Conference, Canberra.
Rice, S. J. C., D. Craig, et al. (2010). "Economic evaluation of enhanced staff contact for the promotion of breastfeeding for low birth weight infants." Int. J. of Technology Assessment in Health Care 26(02): 133-140.

How does breastfeeding rank for cost effectiveness at the 'big picture' level?

- Life saving interventions in the United States - US$13, 800-$4.2 million per YLS (Tengs 1995)
- Primary health care $5,000 per YLS, secondary health care $23,000, tertiary health care $22,000
  - Neonatal intensive care $279,000 for LBW infants; $5,700 YLS (1000-1499 gm)
- Pharmaceuticals – cost effective standard for Australian PBS funding A$35,000-69 000 per DALY (Pezzullo 2007)
- Public health interventions in developed countries
  - Smoking cessation – costs between $US498 and $US15,282 per YLS (Ronckers et al)
- Vaccination
  - Pneumococcal conjugate vaccination of infants - A$12,000 per DALY averted (Butler et al 2004 - developed country)
  - Rotavirus vaccination of infants A$100-200 per death averted - (Caulfield et al 2006 - developing country)
- Breastfeeding
  - US$180 per ED admission averted
  - US$100-200 per death averted
  - US$2-30 per DALY gained

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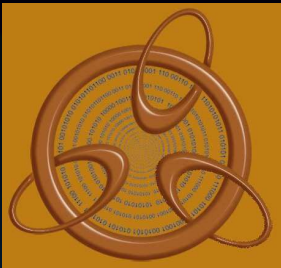

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Global context

- **Breastfeeding is cited internationally as one of the most cost effective 'interventions' in mother and child health**
  - **"Of available interventions, counseling about breastfeeding [and fortification] have the greatest potential to reduce the burden of child mortality and morbidity',** Bhutta et al, *The Lancet*, 2008**.**
  - **"Despite the lack of RCTs evaluating the impact of breastfeeding neonatal outcomes, overwhelming evidence for perinatal and neonatal health benefits from breastfeeding'. "Assessment of cost effectiveness must be incorporated into neonatal health research to guide selection of interventions and stimulate investment in neonatal health p602.** Bhutta, et al, *Pediatrics*, 2005;
  - **Promoting ebf has potential to prevent 13% of all under 5 deaths in developing countries and 'are the single most important preventative intervention against child mortality",** Bhandari et al, *Maternal and Child Nutrition*, 2008
  - **Costs of breastfeeding programs range from US$100 to US$200 per death averted, making them comparable in cost-effectiveness to measles and rotavirus vaccination.** Caulfield, et al 2006, 551-68**.**

Table of results against criteria

Author	Date	Setting	Perspective	Costs	Effectiveness measure	Time preferences and discounting	Uncertainty and sensitivity analysis	Summary cost-effectiveness measure - incremental	Result	Transparency and presentation of data
Adam et al	2005	WHO subregions: sub-Sahara and South East Asia	Health system/funding agencies	Capital, personnel, equipment & materials	Breastfeeding rates	☹	☹	$/DALY averted; ACER & ICER	$/DALY averted = 6-10 ACER = 1 - 6 ICER = 1 - 6	☹
Chee	2002	Rural Ghana	Funding agency	Capital, personnel, training, materials, equipment. Volunteer costs excluded.	Exclusive breastfeeding rate (ExBR) in babies aged 0 - 6 months and timely initiation of breastfeeding (TIB)	☹	☹	Cost / behaviour change	Cost per behaviour change: Exclusive BF = $34 Timely initiation of BF = $45	☹
Chee	2004	Ruran & urban Madagascar	Funding agency	Capital, personnel, training, materials, equipment. Volunteer costs excluded.	ExBR 0 - 6 months and TIB	☹	☹	Cost / behaviour change	Cost per behaviour change: Exclusive BF = $10 Timely initiation of BF = $2.33	☹
Chee	2006	Zambia	Funding agency	Capital, personnel, training, materials, equipment. Volunteer costs excluded.	ExBR 0 - 6 months and TIB	☹	☹	Cost / behaviour change	Cost per behaviour change: Exclusive BF = $104 Timely initiation of BF = $50	☹
Horton et al 1996	1996	Brazil, Mexico & Honduras	Health service provider	Capital, personnel, materials, equipment. Donated goods valued at market rates. Program maintenance only: no set up. Formula savings included	Exclusive and partial breastfeeding	☹	☹	$/DALY gained (diarrhoea only)	1992 US$2-$19/DALY gained	☹
Paul et al	2004	USA	Health service funder	Service provision (no further detail provided)	Readmission or emergency visit 10 days postpartum	☹	☹	ICER for home nursing strategy	$181.82 per admission/ED visit averted	☹
Pugh et al	2002	USA (low income urban women)	Health service funder and family	Personnel, time for feeding valued at mother's wage, formula costs included. Capital and admin costs excluded.	Exclusive and partial breastfeeding	☹	☹	Average cost per mother for intervention	Not calculated	☹
Stevens et al	2007	Canada	Family and health system	Caring time (excluding by mothers) and expenses (incl medications, supplies, equipment); hospital system costs as reported by mothers	Exclusive breastfeeding or breastmilk feeding at 7 days; jaundice or re-admission.	☹	☹	Cost per mother for experimental cf standard care	Not calculated	☹

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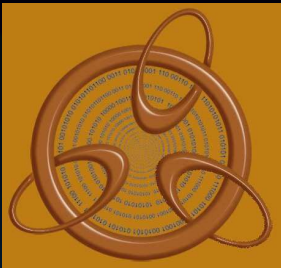

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Is breastfeeding cost saving?

- Economic modelling shows premature weaning results in significant health and hospital costs
  - $A12 million p.a. in potential cost saving from increasing breastfeeding (NEC - $250-$960 per QALY) (Drane 1997)
  - In Canberra (1995-96) - the attributable hospital system costs of premature weaning were estimated to be $1.0-2.0m pa ($60-120 million Australia wide) (Smith, Thompson, Ellwood 2002)
  - Comparable US estimates for avoidable cost of common illnesses around $3.6 billion pa (Weimer 2001)
  - April 2010 study showing avoidable health treatment costs of $13 billion p.a (Bartick et al *Pediatrics*)
- SIDS, NEC, LRTI, gastrointestinal illness, neurological/cognitive development deaths and treatment most important drivers of total cost

Maternal time investment is a cost of breastfeeding

- Mothers face economic (time) costs of breastfeeding. Breastfeeding takes time, it is not 'free'
- Exclusively breastfeeding mothers of infants in the Australian Time Use Survey of New Mothers spent 17-20 hours a week feeding
- Analysis of Longitudinal Study of Australian Children (LSAC) also shows breastfed infants on average, are held, cuddled or soothed (32 minutes more per day)
- Time costs needs to be recognised in policy and practice

Feeding status this week	Age of youngest child	Mean
bm only	3	17.2
	6	17.2
bmsolids	6	11.3
	9	9.6

Smith JP, Ellwood M. Feeding patterns and emotional care in breastfed infants. *Social Indicators Research* 2010 (in press) ; Smith J. Who pays for the health benefits of breastfeeding? An analysis of time costs, Public Health Association Annual Conference; 2007; Alice Springs, September 23-26; 2007 ;
Baxter J, Smith JP. Breastfeeding and time use. Australian Institute of Family Studies RP 2009 43

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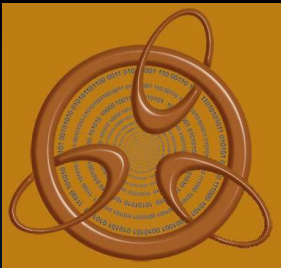
Is breastfeeding effective in promoting normal infant health, development and survival?



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Established health risks of not breastfeeding AAP

MORBIDITY	RELATIVE RISK
GI/infant botulism	5.5
respiratory illness	3.0
eczema	6
NEC	2
Hib/meningitis	3.9
urinary tract infection	5.4
acute otitis media	2.1

American Academy of Paediatrics (AAP) 2005, 'Policy Statement: Breastfeeding and the Use of Human Milk', *Pediatrics*, vol. 115, no. 2 February, pp. 496-506.

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Breastfeeding 'likely to be protective' AAP

AAP study

- Crohn's disease
- ulcerative colitis
- lymphoma
- allergic diseases
- chronic digestive illness
- insulin dependent diabetes mellitus

Other studies

- obesity
- heart disease
- sepsis
- pneumonia
- blood pressure
- insulin resistance
- multiple sclerosis

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Systematic reviews

- Convincing evidence'
  - Gastrointestinal infections
  - Otitis media
  - Obesity
  - High blood pressure
- 'Probable'
  - Respiratory tract infections
  - Asthma
  - Wheezing
  - Eczema
  - Intellectual and motor development
- 'Possible'
  - Crohn's disease
  - Ulcerative colitis
  - Atopy
  - Type 1 diabetes
  - Childhood leukemia
  - SIDS
  - Hospitalisation

Büchner FL, Hoekstra J, van Rossum CTM. Health gain and economic evaluation of breastfeeding policies. 2007.

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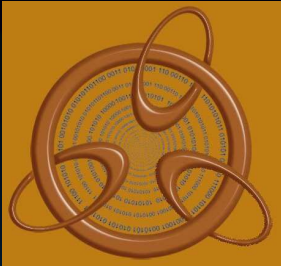

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Systematic reviews

- Acute Otitis Media
- Atopic Dermatitis
- Gastrointestinal Infections
- Lower Respiratory Tract Diseases
- Obesity
- Type 1 Diabetes
- Type 2 Diabetes
- Childhood Leukemia
- Sudden Infant Death Syndrome (SIDS)
  - (RR down 36%)
- Necrotizing Enterocolitis (NEC)
  - (RR down 4-82%)

Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries. Evidence Report/Technology Assessment No. 153, AHRQ Publication No. 07-E007. Rockville, MD: Agency for Healthcare Research and Quality. April 2007.

Systematic reviews

- Higher blood pressure
- Higher total cholesterol
- Overweight/obesity
- Type 2 diabetes
- Lower performance in IQ test

Horta BL, Bahl R, Martinez JC, Victora CG. Evidence on the long term effects of breastfeeding: systematic review and meta analyses. Geneva: World Health Organisation; 2007.

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Chronic disease relative risks from meta-analyses

Chronic disease	Relative risk
Obesity	1.28
Diabetes (type 1)	1.43
Diabetes (type 2)	1.64
Heart, stroke and vascular disease	1.20
Asthma	1.37
Coeliac disease	2.08
Inflammatory bowel disease	1.40
Childhood cancer	1.25

Smith, J., and Harvey, P. "The role of infant feeding in later life chronic disease risk," in: Public Health Nutrition, forthcoming 2010.

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Other

- speech, jaw and facial development
- dental decay
- bonding and attachment – brain development and later mental health
- vision/central nervous system development/ROP
- neurological development and IQ (3-8 IQ points, higher (9-11pts) for premature or SGA)

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Health implications of cross (species) nursing

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A closer look at effectiveness of breastfeeding vs other interventions with economic relevance

- **NEC**
  - significantly higher incidence of necrotising enterocolitis in formula fed :
    - typical relative risk 2.5 formula only vs donor milk (Quigley et al 2007)
    - relative risk for lack of mothers milk 7-20 (Lucas and Cole 1990)
- **Sepsis**
  - Several studies showing higher incidence in VLBW formula fed (OR = 0.27 to 0.47 for breastfed vs formula fed)

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A closer look at effectiveness of breastfeeding vs other interventions with economic relevance

- **Cognitive/neurological development of term and premature infants**
  - Studies on neurodevelopmental outcomes have reported significantly positive effects for human milk intake on mental and motor development, intelligence quotient, and visual acuity compared with the feeding of formula.
  - Kramer study 17000 infants followed up at age 6.5 Cluster randomised design Ebf and bf duration increased substantially in intervention group ebf prevalence at 3 months 43% vs 6%Full IQ measures 3.3 percent points higher in ebf 3-6 months vs ebf<3 months, and 4.2 in ebf for > 6 mo vs <3 months For; verbal IQ 4.7 (5.2 for ebf>6m) vs ebf<3 moFor performance IQ 1.2 (2.1 >6 mo) Significant and dose responsive
  - Drane study of cost implications for premature infants

Can we intervene effectively to increase breastfeeding?

- Skin to Skin (still bf at 1-3 months, OR 2.1)
- Commercial discharge packs/marketing (OR for cessation 1.3-2)
- Breastfeeding education and support (professional/lay) RR for cessation (0.5-0.88)
- BF postnatal support for ebf 6 wks to 6 mo (RR = 1.8-2.1)

Hector, D., L. King, et al. (2004). Overview of recent reviews of interventions to promote and support breastfeeding, NSW Centre for Public Health Nutrition, University of Sydney and NSW Department of Health.

Su, L. L., Y. S. Chong, et al. (2007). "Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: randomised controlled trial." British Medical Journal.

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Effective measures to increase breastfeeding

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Table 8. Summary of the magnitude of effect (derived from meta-analyses) of different types of intervention on breastfeeding practices

Review	Intervention	Breastfeeding outcome (95% confidence intervals)	Measure of effect
Anderson et al. (2003)	Early skin-to-skin contact	Still breastfeeding (any) at 1-3 months post-birth	OR[1] 2.15 (1.10, 4.22)
		Duration	WMD[2] 41.99 days (13.97, 70.00)
USPSTF (2003)	Breastfeeding education	Initiation Short-term duration (< 3 months)	difference[3] 0.23 (0.12, 0.34) difference 0.39 (0.27, 0.50)
	Support alone	Short-term duration (1-3 months) Long-term duration (4-6 months)	difference 0.11 (0.03, 0.19) difference 0.08 (0.02, 0.16)
	Education plus Support	Initiation Short-term duration	difference 0.21 (0.07, 0.35) difference 0.37 (0.17, 0.58)
Sikorski et al. (2001)	Support (all types)	Duration	RR (for stopping breastfeeding before last stu assessment up to six months) 0.88[4] (0.81, 0.95)
		Exclusive breastfeeding	RR (for stopping exclusive breastfeeding before last study assessment) 0.78 (0.60, 0.89)
	Professional support	Duration	RR (for stopping breastfeeding before last study assessment up to 6 months) 0.89 (0.81, 0.97)
		Exclusive breastfeeding	RR (for stopping exclusive breastfeeding before 4-6 wks) 0.50 (0.27, 0.90) RR (for stopping exclusive breastfeeding before 2 months) 0.76 (0.61, 0.94)
	Lay support	Duration	RR (for stopping breastfeeding before last study assessment) 0.84 (0.69, 1.02) non significant trend
		Exclusive breastfeeding	RR (for stopping exclusive breastfeeding before last study assessment) 0.66 (0.49, 0.89)
	Face-to-face interventions	Duration	RR for giving up breastfeeding 0.86 (0.78, 0.94)
	Only Postnatal support	Duration	RR for giving up breastfeeding 0.88 (0.80, 0.96)
	WHO/UNICEF Training	Prolonged exclusive breastfeeding	RR for giving up exclusive breastfeeding 0.70 (0.53, 0.93)
Donnelly et al (2000)	Commercial hospital discharge packs: With promotional material but no formula sample *versus* no intervention	Exclusive breastfeeding 0-2 weeks 3-6 weeks 8-10 weeks	Peto Odds Ratios[5] 1.99 (1.04, 3.79) 1.23 (1.05, 1.43) 1.73 (1.13, 2.64)
	With formula + leaflets *versus* no intervention or non-commercial packs	0-2 weeks 3-6 weeks	1.99 (1.04, 3.79) 1.25 (1.06, 1.47)
	Packs with formula promotional material, no formula sample versus no intervention	3-6 weeks	1.27 (1.01, 1.62)

[1] *OR = Odds ratio. Mothers that experienced early skin-to-skin contact with their babies were over two times (2.15 times) more likely to be still breastfeeding at 1-3 months than mothers who did not experience early skin-to-skin contact with their babies.*

[2] *WMD = Weighted mean difference. A statistical measure of difference used in meta-analysis. In this instance it means that mothers experiencing early skin-to-skin contact breastfed on average 42 days longer than mothers who didn't experience early skin-to-skin contact.*

[3] *'difference' refers to the difference in proportion of mothers breastfeeding in the intervention group compared to the control group, ie 0.23 indicates that 23% more mothers were breastfeeding as indicated as a result of the intervention*

[4] *Sikorski et al present the measure of effect (relative risk) in terms of the risk to the breastfeeding practice, hence it is less than 1. A smaller number indicates a larger, positive effect of the intervention in terms of improved breastfeeding practice.*

[5] *The peto odds ratio is used in Cochrane meta-analyses as an approximation to the odds ratio (see footnote 1 above)*

A closer look at studies of effectiveness of interventions with economic relevance

- Baby Friendly Hospital Initiative
- Education and support
- Milk banking/milk expression

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Can we intervene (cost) effectively in hospital to increase breastfeeding?

- **BFHI**
  - **large increases in ebf and bf duration are possible through improved hospital practices . 17000 infants followed up at age 6.5 Cluster randomised design Ebf and bf duration increased substantially in intervention group ebf prevalence at 3 months 43% vs 6%**

Kramer, M. S., F. Aboud, et al. (2008). "Breastfeeding and child cognitive development: new evidence from a large randomized trial." Arch Gen Psychiatry 65(5): 578-84.
Perez-Escamilla, R. (2007). "Evidence based breast-feeding promotion: the Baby-Friendly Hospital Initiative." J Nutr 137(2): 484-7.

Can we intervene effectively to increase breastfeeding in neonatal units?

- Strong evidence for effectiveness of
  - Short periods of kangaroo skin-to-skin contact, increased the duration of any breastfeeding for 1 month after discharge [risk ratio (RR) 4.76, 95% confidence interval (CI) 1.19 to 19.10] and for more than 6 weeks (RR 1.95, 95% CI 1.03 to 3.70)
  - Peer support at home (in Manila) for mothers of term, low birthweight infants for any breastfeeding up to 24 weeks (RR 2.18, 95% CI 1.45 to 3.29) and exclusive breastfeeding from birth to 6 months (RR 65.94, 95% CI 4.12 to 1055.70),
  - Peer support in hospital and at home for mothers of infants in Special Care Baby Units for providing any breastmilk at 12 weeks [odds ratio (OR) 2.81, 95% CI 1.11 to 7.14; p = 0.01].
- Limited evidence for
  - effectiveness of skilled professional support in a US Neonatal Intensive Care Unit on infants receiving any breastmilk at discharge (OR 2.0, 95% CI 1.2 to 3.2, p = 0.004). .

Renfrew, M. J., D. Craig, et al. (2009). "Breastfeeding promotion for infants in neonatal units: a systematic review and economic analysis." Health Technol Assess 13(40): 1-146, iii-iv.
Rice, S. J. C., D. Craig, et al. (2010). "Economic evaluation of enhanced staff contact for the promotion of breastfeeding for low birth weight infants." International Journal of Technology Assessment in Health Care 26(02): 133-140.

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Can we intervene (cost) effectively to in neonatal units?

- **Milk banking**
  - Cost saving and effective, (Daga & Daga 1985).
  - Reportedly cost effective for hospital costs cost savings of $11 for each $ of DM cost (Wight 2001)
- **Milk expression and lactation support**
  - $US 1-1.5 per litre lower cost for institution and funding agency than preterm formulas
  - $US 3-6 per litre including maternal time costs (Jegier & Meier 2009)
- **May not be an either/or issue may half rate of non ebf on discharge (Utrera Toress 2010)**

Daga & Daga (1985). "Impact of breast milk on the cost-effectiveness of the special care unit for the newborn." J Trop Pediatr 31(2): 121-3.

Arnold (2002). "The cost-effectiveness of using banked donor milk in the neonatal intensive care unit: prevention of necrotizing enterocolitis." J Hum Lact 18(2): 172-7.

Jegier & Meier, et al. (2009). "The Initial Maternal Cost of Providing 100 mL of Human Milk for Very Low Birth Weight Infants in the Neonatal Intensive Care Unit." before and after study." International Breastfeeding Journal 5(1): 4

Utrera Torres Medina Lopez, et al (2010). "Does opening a milk bank in a neonatal unit change infant feeding practices? A before and after study." International Breastfeeding Journal 5(1): 4.

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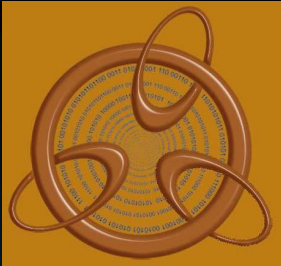

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Is breastfeeding/human milk feeding likely to be more cost effective than other measures directed at the same ends?

- **Mothers milk and donor milk**
  - No directly comparative studies but economic analysis found
    - additional skilled professional support in hospital was more effective and less costly (due to reduced neonatal illness) than normal staff contact.
    - Additional support ranged from 0.009 quality-adjusted life-years (QALYs) to 0.251 QALYs more beneficial per infant and from £66 to £586 cheaper per infant across the birthweight subpopulations.
    - Donor milk would become cost-effective given improved mechanisms for its provision. (Renfrew & Craig, et al. 2009)
- **Timing of initiation and advancement of feedings**
- **Probiotics**
  - (Parish 2008 'To date use of human milk from the patient's own mother affords the most consistent protection from NEC.')

Parish, A. and J. Bhatia "Feeding strategies in the ELBW infant." J Perinatol 28(S1): S18-S20.

Conclusion

- Globally, breastfeeding is found to be among the most cost-effective 'interventions' to improve child nutrition and health.
- There are few studies of cost effectiveness of breastfeeding or breastfeeding interventions
  - Future research needs to give breastfeeding and human milk 'equal air time' with other interventions
- Some breastfeeding interventions seem cost effective, especially from hospital perspective
  - It is important to count costs to mother such as time, and interventions needed to support her
- Breastfeeding/breastmilk seems highly effective in preventing harm to premature infants. Some interventions to promote breastmilk feeding of these infants seem effective.

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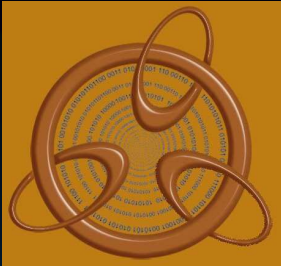

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