

# INCREASED EXCLUSIVE BREASTFEEDING (EBF) IN SOUTH AFRICA FROM 2010 TO 2013: IMPACT OF NATIONAL POLICY CHANGE?

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# BACKGROUND: REPORTED EBF IN SA

Study	Time Period	Location	Recall Period	% EBF				
				1998	2003	2007	2008	2009
HSRC	0-6 months	National	Unknown				25.7	
DHS	0-6 months	National	24 hour	7	8.3			
	0-3 months	National	24 hour	10.4	11.2			
Good Start 1	3 weeks	KZN, EC, WC	4-day recall		HIV+:42 HIV-: 11			
	12 weeks				HIV+18 HIV-: 3			
PROMISE-EBF	3 months	KZN; WC	24 hour			6		
			7 day			4		
CJ Crooks Hospital	3 months	KZN - Durban	Unknown		All: 18 HIV+: 11			
Good Start 2	3 months	KZN - Durban	24 hour					14.9

# POLICY CONTEXT: 2011 TSHWANE DECLARATION

- 2011: National MoH Consultation
- **Tshwane Declaration of Support for Breastfeeding (TSD)** - shifted national policy to promote EBF
- By Sept 2012 free formula milk for HIV-positive mothers was withdrawn from PMTCT - EBF messaging for front line workers emphasized as a policy priority.

# BACKGROUND



2010



2011-12



2012-13.....2014

Cross sectional surveillance; 2012 + observational cohort

Policy background:

2010 prior to TSD

2011-12 during the policy transition period

2012-13 after complete implementation of TSD.



PHC / CHC

Target sample size:  
12 200 infants

National and provincial-level estimates



# METHODS

- Sample size attained:
  - 2010: 10 182 caregiver-infant pairs
  - 2011: 10 106
  - 2012: 9 120
- Enrolment regardless of mother reported HIV status.
- Interviews gathered data on maternal socio-demographics, ante- and postnatal care and PMTCT services.
- Infant feeding assessed using **structured recall of 24 hours + 7 days.**
- EBF defined as per WHO.
- Data weighted for sample realisation and population live births.

# 4-8 WEEK EBF PREVALENCE: HIV POS & NEG MOTHERS

	2010	2011	2012
	% [95% CI]	% [95% CI]	% [95% CI]
<b>Eastern Cape</b>	15.5 [12.0,19.8]	24.8 [21.0,29.1]	53.8 [49.0,58.5]
<b>Free State</b>	16.1 [14.1,18.2]	33.3 [30.5,36.3]	53.3 [48.7,57.9]
<b>Gauteng</b>	23.2 [20.2,26.5]	36.4 [31.6,41.6]	65.0 [61.2,68.6]
<b>KwaZulu Natal</b>	33.7 [30.2,37.4]	46.6 [43.0,50.2]	60.4 [55.9,64.6]
<b>Limpopo</b>	19.5 [16.1,23.4]	21.3 [18.0,24.9]	47.9 [43.0,52.8]
<b>Mpumalanga</b>	15.9 [13.1,19.2]	47.3 [41.2,53.5]	65 [61.7,68.2]
<b>Northern Cape</b>	22.1 [18.8,25.8]	30.9 [26.6,35.4]	61.7 [57.4,65.9]
<b>Northwest</b>	24.3 [20.7,28.2]	30.4 [26.8,34.2]	65.4 [60.6,69.8]
<b>Western Cape</b>	17.9 [15.3,20.8]	36 [31.2,41.1]	54.9 [49.8,59.8]
<b>South Africa*</b>	<b>22.9</b> [21.5,24.3]	<b>35.7</b> [33.9,37.6]	<b>59.1</b> [57.4,60.7]

# PREDICTORS OF 4-8 WEEK EBF: MULTIV. ANAL.

Variable	Adjusted Odds Ratio	95% Conf. Interval	
<b>Year (Ref: 2010)</b>			
<b>2011</b>	1.98	1.79	2.18
<b>2012</b>	5.30	4.78	5.88
<b>Province (Ref: EC)</b>			
<b>FS</b>	1.21	0.98	1.48
<b>GP</b>	1.69	1.37	2.08
<b>KZN</b>	2.15	1.75	2.63
<b>LP</b>	0.96	0.76	1.21
<b>MP</b>	1.62	1.30	2.02
<b>NC</b>	1.34	1.08	1.67
<b>NW</b>	1.49	1.20	1.84
<b>WC</b>	1.30	1.03	1.64

# PREDICTORS OF 4-8 WEEK EBF

Variable	Adjusted Odds Ratio	95% Conf. Interval	
<b>House Type (Ref: Brick)</b>			
<b>Informal/Wood</b>	1.09	1.00	1.19
<b>Traditional/Mud</b>	1.20	1.01	1.42
<b>Toilet (Ref: Indoor Flush)</b>			
<b>Pit Latrine</b>	1.19	1.07	1.32
<b>Food Insecurity (Ref: Yes)</b>			
<b>No</b>	1.14	1.04	1.24
<b>Don't Know</b>	1.65	1.21	2.26
<b>Mother Employment (Ref: Employed)</b>			
<b>Other Income</b>	1.53	1.42	1.65
<b>No Income</b>	1.54	1.02	2.31
<b>Mother Age (Ref: &lt;20)</b>			
<b>20-34y</b>	1.08	0.99	1.16
<b>35-50y</b>	1.12	1.01	1.25
<b>Parity (Ref: Primipara)</b>			
<b>Multipara</b>	1.16	1.09	1.23



# PREDICTORS OF 4-8 WEEK EBF

Variable	Adjusted Odds Ratio	95% Conf. Interval	
<b>Fuel for cooking (Ref: Electricity)</b>			
<b>Wood/Coal</b>	0.84	0.73	0.97
<b>Planned Pregnancy (Ref: Yes)</b>			
<b>No</b>	0.93	0.88	0.99
<b>Delivery Method (Ref: Vaginal)</b>			
<b>Cesarean</b>	0.84	0.78	0.90
<b>Mother Education (Ref: No education)</b>			
<b>Tertiary</b>	0.62	0.50	0.77
<b>HIV Status (Ref: Negative)</b>			
<b>Positive</b>	0.66	0.61	0.71
<b>Don't Know</b>	0.74	0.56	0.99
<b>Water Source (Ref: piped in house/yard)</b>			
<b>Not piped - house/yard</b>	0.84	0.75	0.93
<b>Infant Age Weeks (Ref: 4 weeks)</b>			
<b>8 weeks</b>	0.68	0.54	0.86
<b>Breastfeeding counseling (Ref: Yes)</b>			
<b>No</b>	0.57	0.51	0.63

# SUMMARY EARLY EBF PREDICTORS

**Significantly less likely to EBF  
at 4-8 weeks:**

Environment:

Reside in EC or LP

No piped water in house/yard

Uses wood / coal not electricity



Mothers:

Employed or tertiary education

HIV-positive

Care:

Caesarean delivery

No breastfeeding counselling

Infants:

Older >8 weeks of age

**Significantly more likely to EBF  
at 4-8 weeks:**

Environment:

Informal housing

Pit latrine

Recent year

Provinces except EC/LP

Mothers:

Informal employment/income

No food insecurity

Older mother

Multiparous mother

# BEYOND EBF: SOLIDS INTRODUCTION BY 6 WEEKS SUBSTANTIALLY REDUCED!

Feeding Category	2010	2011	2012
<u>EFF</u>	% [95%CI]	% [95%CI]	% [95%CI]
EFF no solids	24.6	19.1	16.5
	[23.4,25.8]	[18.0,20.2]	[15.5,17.6]
FF with solids	<b>3.6</b>	<b>2.8</b>	<b>0.5</b>
	<b>[3.2,4.0]</b>	<b>[2.4,3.3]</b>	<b>[0.4,0.7]</b>
<u>MBF</u>			
MIXED BF no solids	18.9	15.7	15.2
	[17.9,19.9]	[14.7,16.7]	[14.3,16.1]
MIXED BF with solids	<b>25.5</b>	<b>23.8</b>	<b>7.0</b>
	<b>[24.2,26.9]</b>	<b>[22.3,25.5]</b>	<b>[6.1,8.0]</b>

# DISCUSSION

- **Similar increases in EBF** have been recorded across South Africa using DHIS data (25-45-83% in 2014-15 FY)
- **SANHANES (2012) data do not suggest an increase: EBF 12.7% <2 months of age.**
- **Possible difference is how questions were asked:**
  - SAPMTCE: 24 hour + previous 7 day feeding
  - SANHANES: no specified time period (mix of 'from birth' and 'current' questions)

# CONCLUSIONS

- **South Africa saw a remarkable increase in early EBF (4-8 weeks, mean = six weeks postpartum) from 2010 to 2013**
- **Coincided with major national infant feeding policy change.**
- These increases were seen across all provinces and all socioeconomic groups, suggesting a **population wide effect**

# CONCLUSIONS

- While these increases in EBF are a huge step the 59.1% EBF prevalence at 6 weeks is **still below desired levels of early EBF**
- The results of this **study suggest several predictors of EBF which could guide future programmatic interventions to further improve EBF rates – Breastfeeding Counselling!!!!**

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