

Educational and Assistance Program for Low Risk Newborn Care in Level II Hospitals in Santiago del Estero-Argentina: A Feasibility Study

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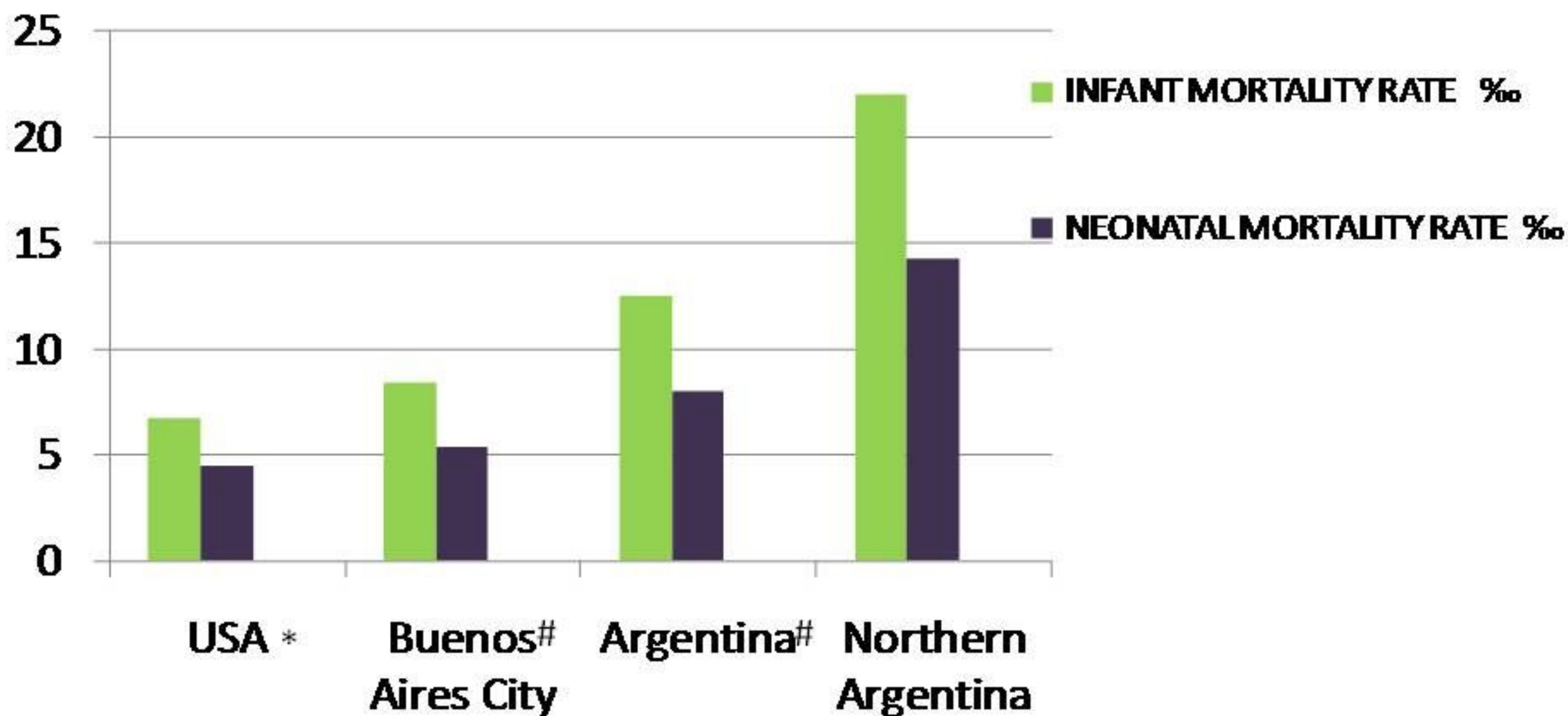


CONFLICT OF INTEREST DISCLOSURE

The authors have no conflict of interest
to declare

STATEMENT OF THE PROBLEM I

INFANT AND NEONATAL MORTALITY RATES

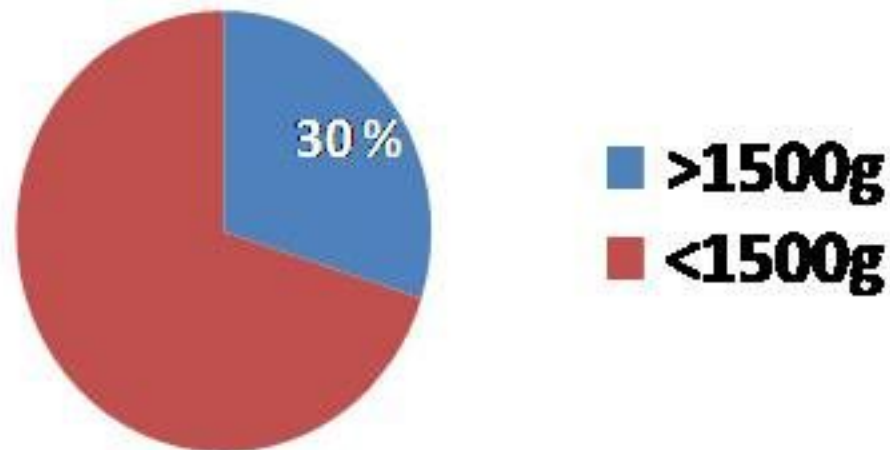


* National Vital Statistics Reports ;5,4 March 2011 (Data for 2009) CDC-USA

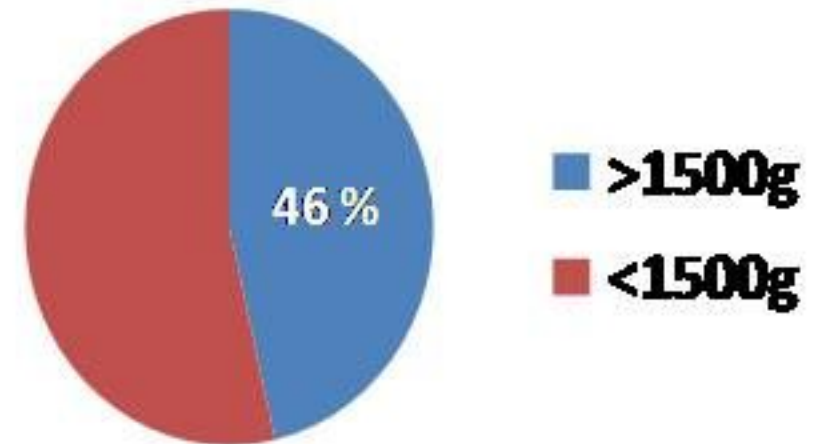
Estadísticas Vitales , Anuario 2009 DEIS (Dirección de Estadísticas e Información en Salud) Argentina

STATEMENT OF THE PROBLEM II

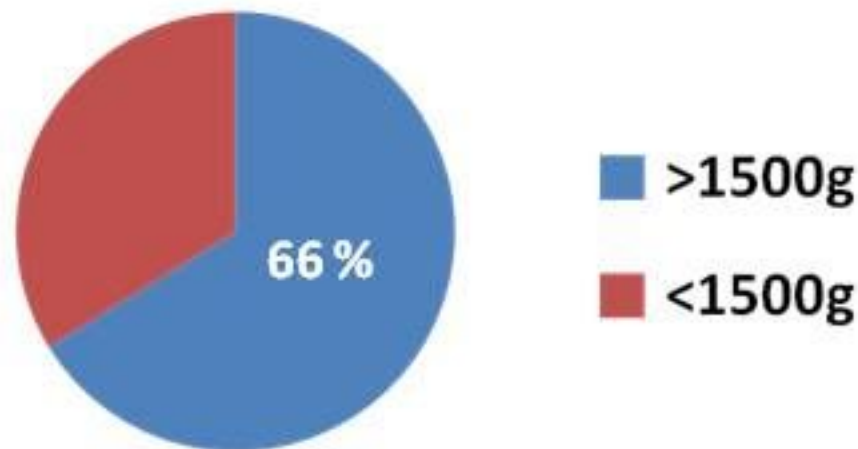
USA



BUENOS AIRES CITY



NORTHERN ARGENTINA



**NEONATAL
MORTALITY**

* National Vital Statistics Reports ;53 (12) Jan 2005 (Data for 2002) CDC-USA

Estadísticas Vitales , Anuario 2009 DEIS (Dirección de Estadísticas e Información en Salud)
Argentina

STATEMENT OF THE PROBLEM III

At level II hospitals

- ✓ Limited human resources
- ✓ Insufficient or misused equipment



STATEMENT OF THE PROBLEM IV

At level III hospitals

NICUs: overcrowded and understaffed



STATEMENT OF THE PROBLEM V

IF MOTHER GOES WITH THE BABY	IF MOTHER STAYS AT HOME
Family disruption	Bond disruption
Socio-economic difficulties	Breastfeeding difficulties
Housing problems	Psycho-emotional problems



STATEMENT OF THE PROBLEM VI

Referral/transport-related difficulties



OBJECTIVES

To assess the feasibility of:

- 1) Training** physicians, nurses and midwives from level II hospitals in simple low-cost neonatal procedures including education and active participation of the mothers.
- 2) Implementing** a “basic education and intervention package” for care of low risk NB infants in 3 hospitals in Santiago del Estero, Argentina.

HYPOTHESES

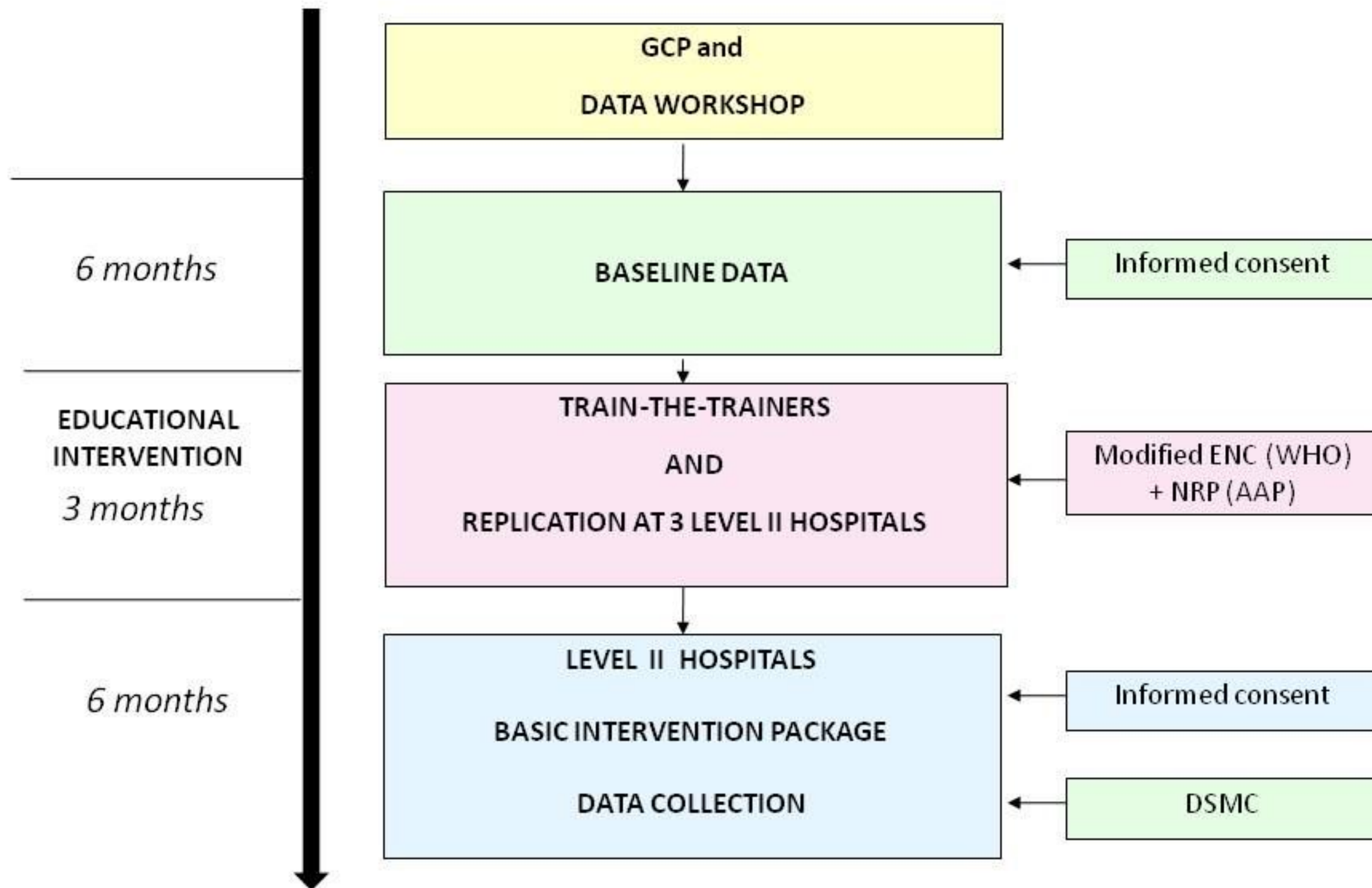
- 1) Educational intervention in essential neonatal care and securing basic equipment in level II hospitals would allow decrease the number of transfers without increasing mortality and morbidity rates
- 2) The new strategy will be accepted by the community

METHODS I (SITES SELECTION)



The study was conducted in three level 2 hospitals in Santiago del Estero, in northern Argentina

METHODS II



METHODS III

“Basic education and intervention package”

- ✓ Thermoregulation
- ✓ Infection control measures
- ✓ Oxygen controlled administration
- ✓ Nutritional strategies (including breastfeeding)
- ✓ Management of hyperbilirubinemia
- ✓ “Kangaroo care” approach
- ✓ Identification of at risk NB and stabilization before transport

STATISTICS

- ✓ Expected number of recruited patients 170
Low Risk NB infants
- ✓ Categorical Variables: Frequency Tables
- ✓ Continuous Variables: Summary Measures
- ✓ Proportion of referred Infants $>1500\text{g}$ (%):
Odd Ratio (CI 95%)

RESULTS I

Educational Intervention

(May – July 2009)

- ✓ 8 local trainers completed the educational program as planned
- ✓ 82 health care providers received the “intervention package training”
- ✓ 56 trained were also certified in NRP

RESULTS II

Admissions, transfers and deaths

SITES	BASELINE					INTERVENTION				
	October 2008 / April 2009					August 2009 / January 2010				
	Live NB	Admissions	Transfers n (%)	Deaths		Live NB	Admissions	Transfers n (%)	Deaths	
				DR	WARD				DR	WARD
Frias	308	24	8 (33.3)	0	0	—	—	—	—	
Termas	344	33	10 (30.3)	0	0	—	—	—	—	
Añatuya	822	225	33 (14.7)*	3	5	538	102	7 (7)*	2	2
Total	1474	282	51 (18.1)	3	5					

*OR= 0,42 (CI95% 0,18-1)

CONCLUSIONS

- Training health care providers to implement basic neonatal care at level II hospitals is feasible and could help reduce transfers to level III hospitals, as shown in one of the centers.
- The implementation was not uniformly achieved in a timely manner, which limited our opportunity to fully test this complex intervention.

WE THANK...

Level II hospital's groups

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Dra. Silvia Ibarra
Dra. Cristina Tiberi
Enf. Jorge Castillo
Enf. Valeria Tapia
Enf. Alejandra Sosa

Regional Hospital

Enf. Mónica Gerez

Maternal Hospital of La Banda

Enf. Mariela Barraza

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Lic. Enf. Graciela Sánchez
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