



# The CNN Annual Meeting and EPIQ Conference & Training Workshop

## EPIQ program in the SIBEN Neonatal Network

Dr Martha Báez for the  
SIBEN Neonatal Network

# SIBEN Ibero American Society of Neonatology.



21 countries

# SIBEN

- Started in 2004
- Membership (2700 members)
  - Neonatal care physicians
  - Nurses
  - Respiratory Therapists



# SIBEN

- A non for profit organization
- Registered in the United States
- Purpose: to improve the quality of neonatal care in the region
- Programs: **education** and **research** directed to physicians and allied personnel

An Pediatr (Barc) 2004;61(5):390-2

# SIBEN's programs

1. Neonatal follow up
2. Neonatal Nursing programs
3. Education workshop, Conferences
4. Publications (FarmaSIBEN)
5. Consensus [www.siben.net](http://www.siben.net)
6. Neonatal Network with support from CNN  
-EPIQ

# Neonatal Problems in Iberoamerica

**Neonatal mortality ranges for 1000 live births:**  
Between **5** (Cuba)<sup>1</sup> and **22** (Bolivia)<sup>2</sup>

**% of Deaths in infants < 5yo due to prematurity:**  
From **15%** (Bolivia and Uruguay) to **25%** (Paraguay)<sup>3</sup>

1.SIBEN

1.Year 2009 in WHO report of 2011.

2.Year 2008 in WHO report of 2011.

Red Neonatal  
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SIBEN

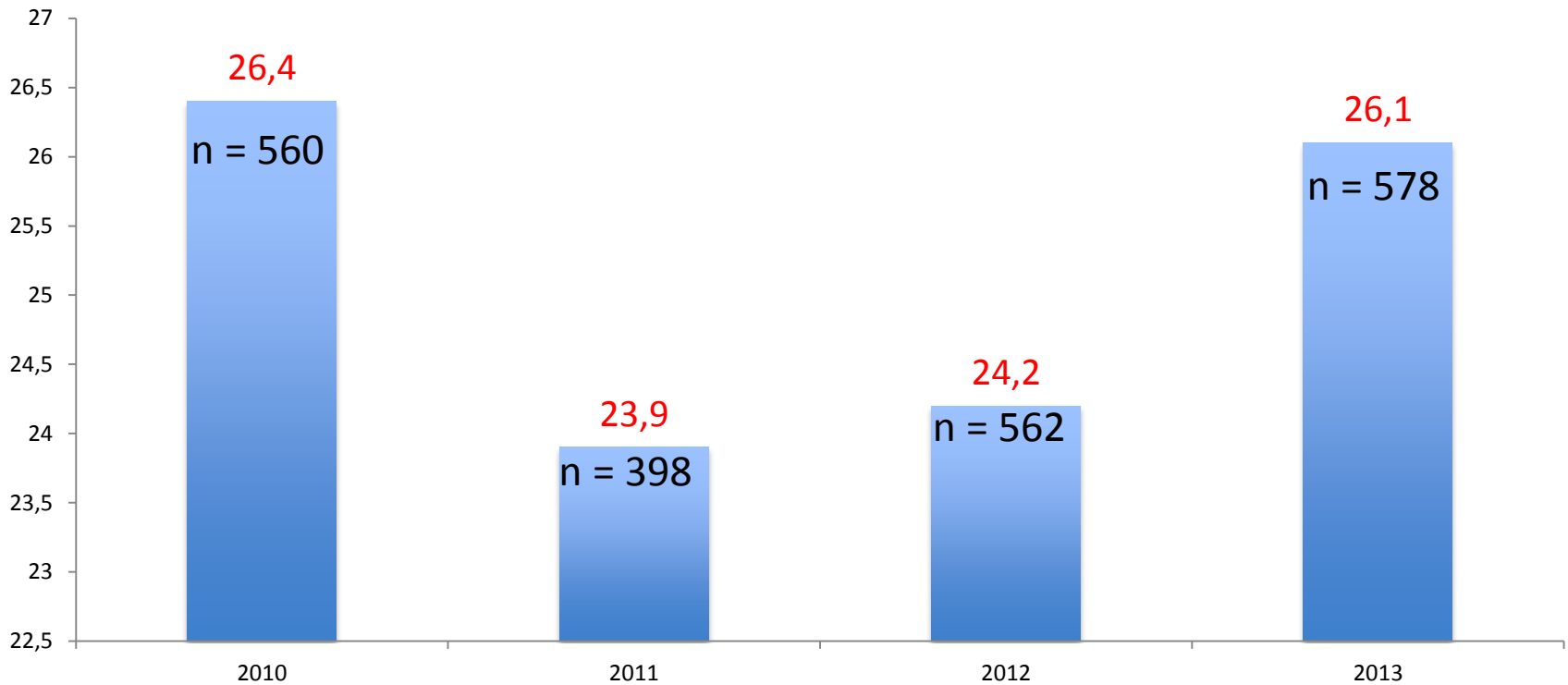
Mejorando el cuidado neonatal

# Neonatal Problems in Iberoamerica

## SIBEN Neonatal Network

2010 - 2013

**% MORTALITY in Preterm infant < 1500 g birth weight**



# Frequency of morbidity and mortality in neonates born <33 weeks gestational age who required resuscitation in SIBEN and CNN neonatal networks

## General outcomes

	<b>SIBEN (n=1245)</b>	<b>CNN (n=10721)</b>	<b>Adjusted OR; 95% CI</b>
<b>Mortality</b>	266 (21%)	790 (7%)	6.52 (5.25, 8.08)
<b>RDS</b>	813 (73%)	6761 (66%)	1.65 (1.40, 1.95)
<b>BPD at 36 weeks</b>	243 (27%)	1944 (20%)	2.83 (2.33, 3.42)
<b>NEC</b>	58 (5%)	519 (5%)	1.21 (0.89, 1.64)
<b>ROP <math>\geq</math> grade 3</b>	25 (4%)	430 (9%)	1.38 (0.85, 2.23)
<b>IVH <math>\geq</math> grade 3</b>	130 (14%)	1135 (13%)	1.38 (1.09, 1.74)
<b>Nosocomial sepsis</b>	232 (19%)	1491 (14%)	1.81 (1.52, 2.16)

Martha Baez<sup>1</sup>, Angela Hoyos<sup>1</sup>, Fernando Aguinaga<sup>2</sup>, Abhay Lodha<sup>3</sup>, Albert Akierman<sup>3</sup>, Carlos Fajardo<sup>3</sup>  
 1. Clínica del Country, Bogotá, Colombia; 2 Hospital Metropolitano, Quito, Ecuador 3. University of Calgary, Canada.

Submitted SIBEN Congress 2014, Mexico.



# Neonatal Problems in Iberoamerica

## Risk factors to pre-term birth

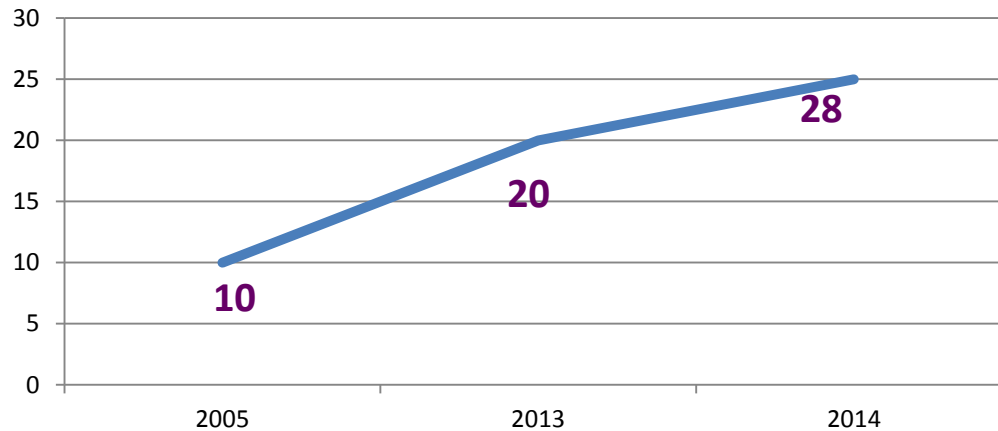
- Socio-economic and demographic risk factors<sup>1</sup>
- Perinatal risk factors<sup>1</sup>
- Environmental factors<sup>2</sup>

1.Ramsey PS, Rouse DJ. Therapies administered to mothers at risk for preterm birth and neurodevelopmental outcome in their infants. *Clin Perinatol* 2002;29(4):725-743.

2.Perlman JM. Cognitive and behavioral deficits in premature graduates of intensive care. *Clin Perinatol* 2002;29(4):779-797.

# SIBEN NEONATAL NETWORK

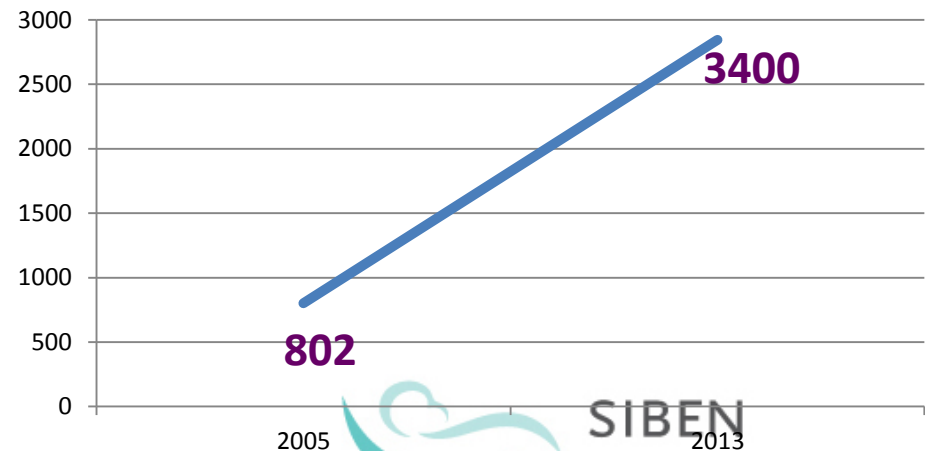
## Increase of NICUs over the years



## Premature

2013	# patients	%
< 33 weeks	727	25,5
< 1500 g	578	20,3

## Increase of Patients over the years



**SIBEN NEONATAL NETWORK**

**Meetings**



EPIQ Bogotá, March 2014

<b>EPIQ Workshop</b>	May 2015
	March 2014
	March 2011
<b>NETWORK Meeting</b>	First Monday of each month by Elluminate
<b>ANNUAL CONFERENCE</b>	XIII Congreso, Paraguay 2016
	XII Congreso, Costa Rica 2015
	XI Congreso, Mexico City, Mexico 2014
	X Congreso, Cartagena, Colombia, 2013
	IX Congreso, Belo Horizonte, Brasil, 2012
	VIII Congreso, Santiago de Chile, Chile, 2011
	VI Congreso, Cusco, Perú, 2009
	V Congreso, Mar del Plata, Argentina, 2008
	IV Congreso, Granada, España, 2007
	III Congreso, Cancún, México, 2006
II Congreso, Isla Margarita, Venezuela, 2005	
I Congreso, Islas Galapagos, Ecuador, 2004	



## Next Main Activities

EPIQ May, 2015. Tucuman

***You are welcome to join us!***

A poster for the XII Congreso de Neonatología SIBEN 2015. The background is a blue and green landscape with mountains. The text includes: SIBEN (Mejorando el cuidado neonatal), Sept. 8-11 2015, COSTA RICA, San José de Costa Rica, HOTEL REAL INTERCONTINENTAL, XII Congreso de Neonatología SIBEN, X Reunión del Capítulo de Enfermería.

SIBEN  
Mejorando el cuidado neonatal  
Sept. 8-11  
2015  
COSTA RICA  
San José de Costa Rica  
HOTEL REAL  
INTERCONTINENTAL  
XII Congreso de  
Neonatología SIBEN  
X Reunión del  
Capítulo de Enfermería

A poster for the XIII Congreso Anual de la Sociedad Iberoamericana de Neonatología and XI Reunión del Capítulo de Enfermería. The background is a city skyline at night. The text includes: SIBEN (Mejorando el cuidado neonatal), PARAGUAY, 24 al 27 Agosto 2016, Anuncio Informativo Preliminar, XIII CONGRESO ANUAL DE LA SOCIEDAD IBEROAMERICANA DE NEONATOLOGIA, XI REUNION DEL CAPITULO DE ENFERMERIA, Sociedad IBEROAMERICANA de Neonatología, Departamento de NEONATOLOGIA HOSPITAL DE CLINICA - ICA-UNA San Lorenzo Paraguay, Hotel Bourbon Asunción, Centro de Convenciones Caniebol, Av. Sudamerica 3104 • Luque, 0000 Asunción, +595 21 6591000, www.bourbonasuncionhotel.com.

SIBEN  
Mejorando el cuidado neonatal  
PARAGUAY  
24 al 27  
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2016  
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Red Neonatal  
SIBEN



SIBEN  
Mejorando el cuidado neonatal

# EPIQ within SIBEN Neonatal Network

- Network
- Identify problems
- EPIQ cycles to improve quality

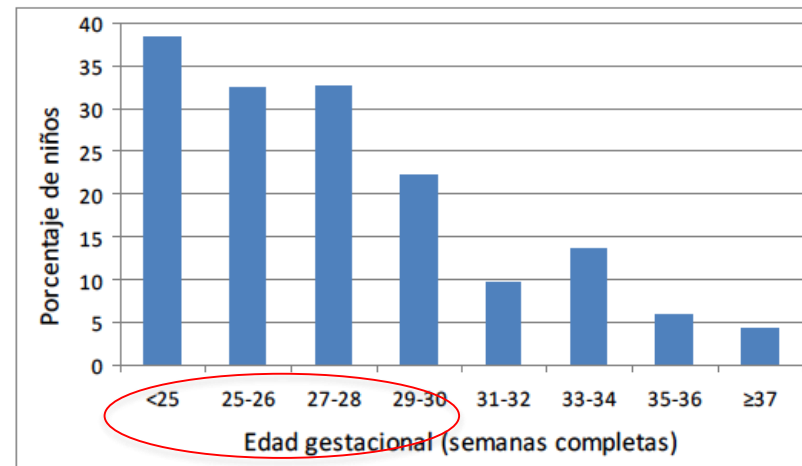
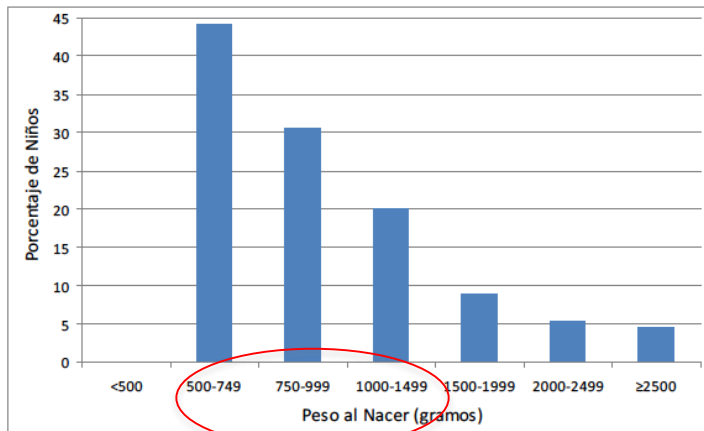
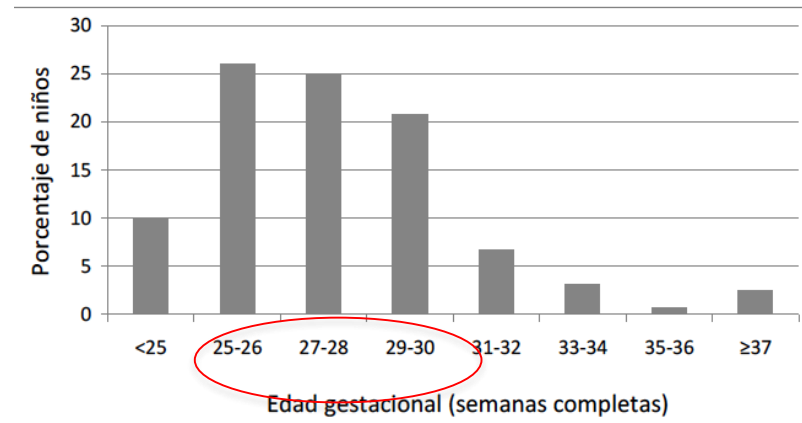
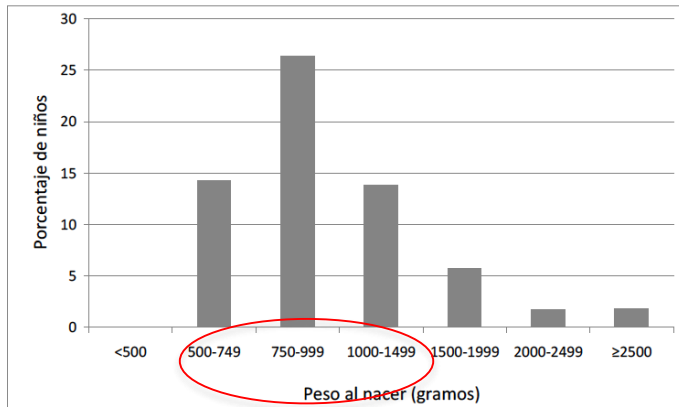
<b>Local processes</b>	<b>Strategy</b>	<b>Network processes</b>
<b>Identification of Problems and needs</b>	<b>Review local data</b>	<b>Review data of SIBEN Network</b>
	<b>Compare local and network data</b>	
<b>Creation of local EPIQ team</b>	<b>Share objectives and experiences</b>	<b>Training of EPIQ teams</b>
<b>Plan local change</b>	<b>Meetings and Share advances and difficulties</b>	<b>Training, monitoring and resolving doubts or problems.</b>
<b>Collect local indicators</b>	<b>Compare between local and network</b>	<b>Benchmark</b>
<b>Review local outcomes</b>	<b>Compare between local and network</b>	<b>Benchmark</b>
<b>New cycles</b>		

First problem identified:

**Nosocomial infection**

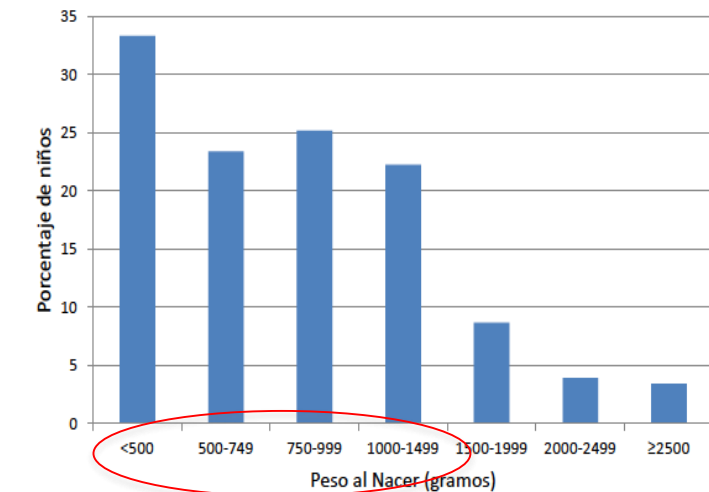
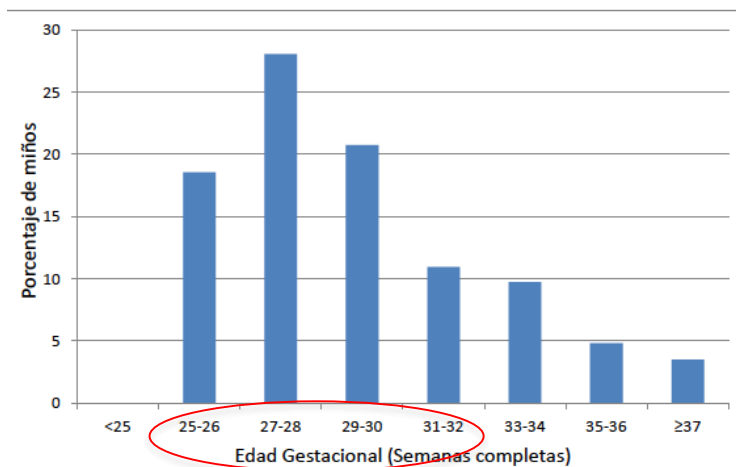
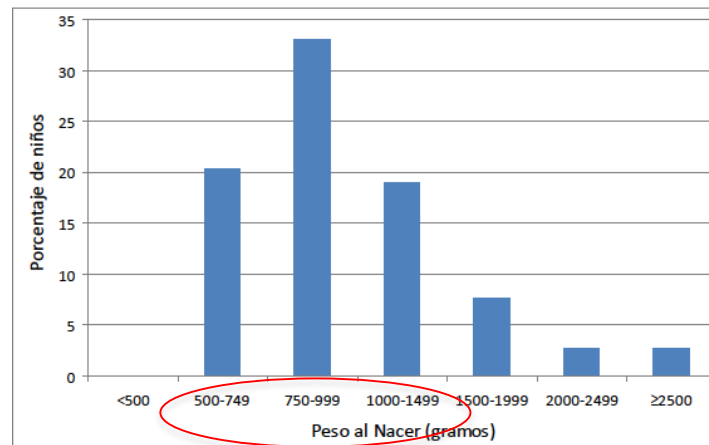
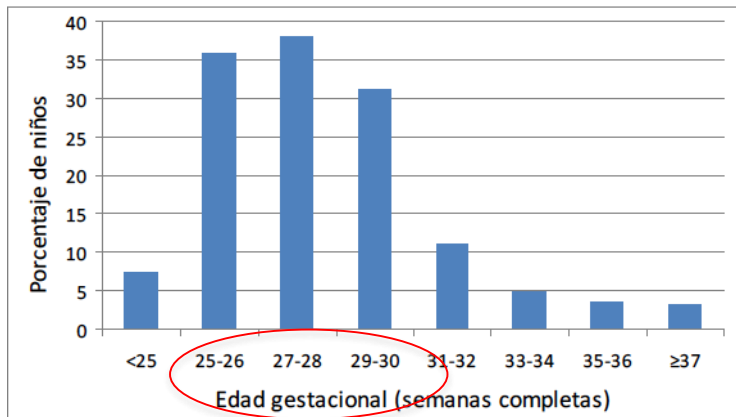


# Nosocomial Infection. SIBEN NN



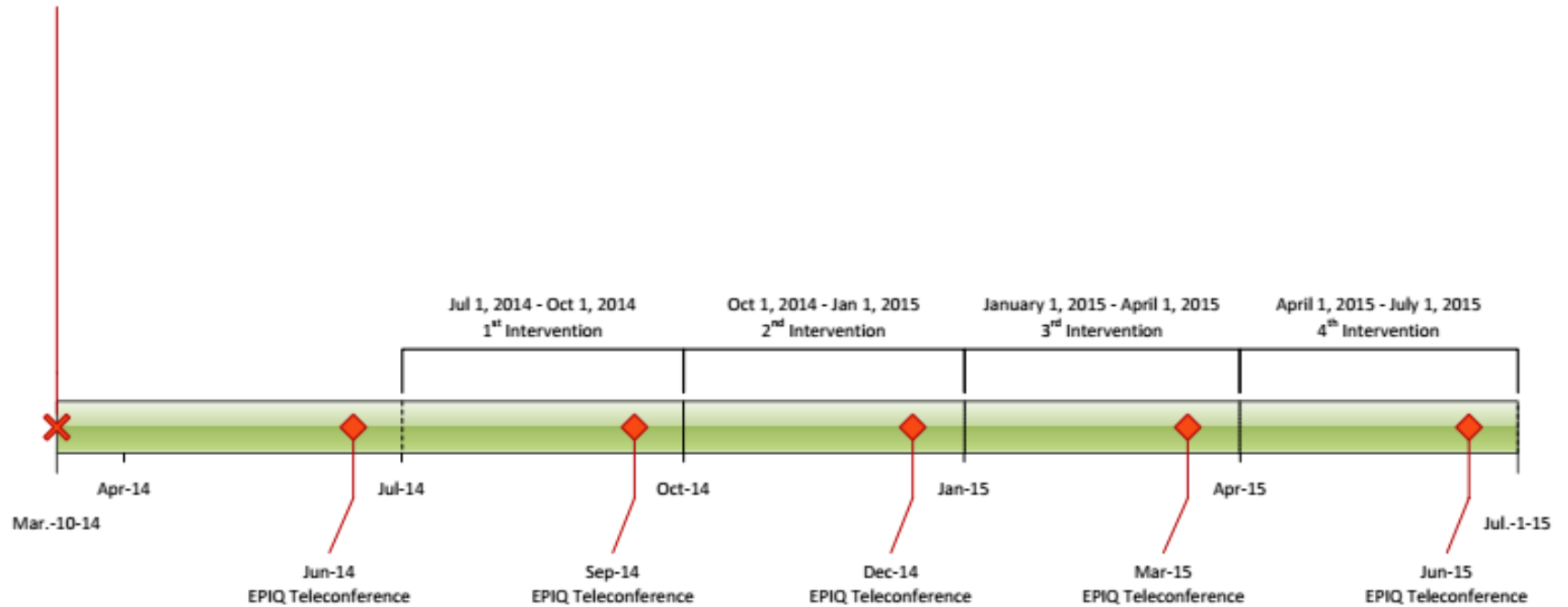


# Nosocomial Infection. SIBEN NN



# EPIQ - SIBEN 1<sup>st</sup> year plan

March 10, 2014  
EPIQ Launch @  
Workshop, Bogota





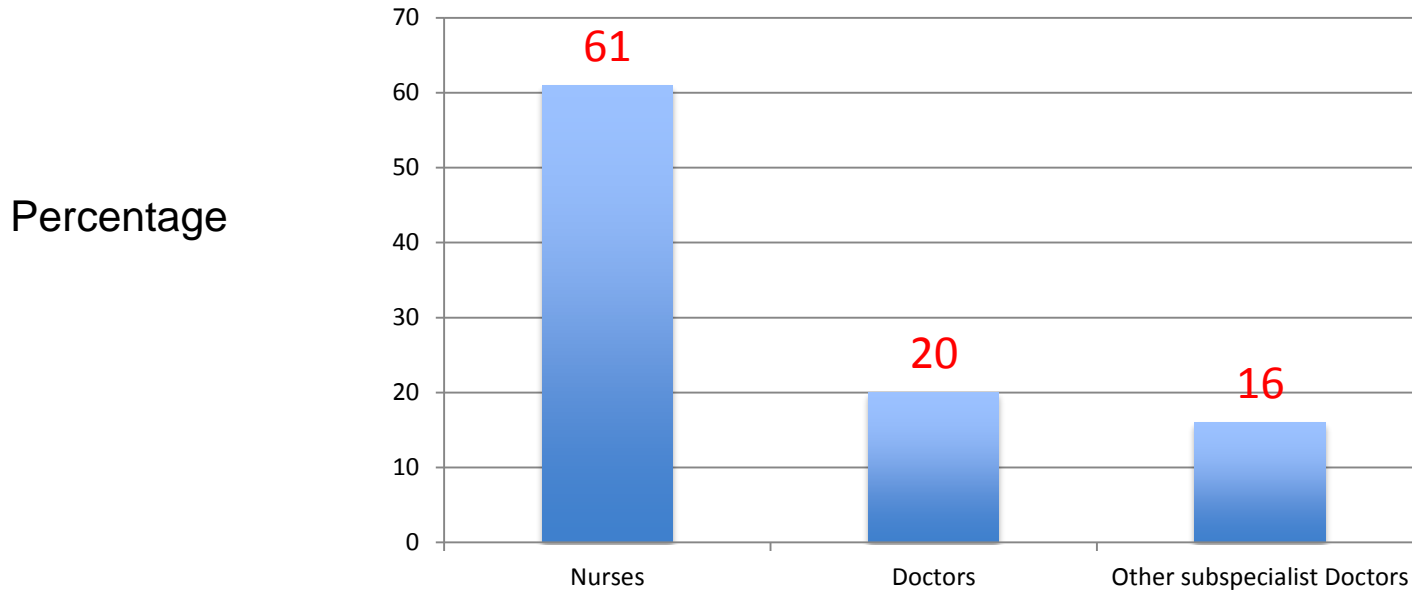
Handwashing



Catheters

# Local report

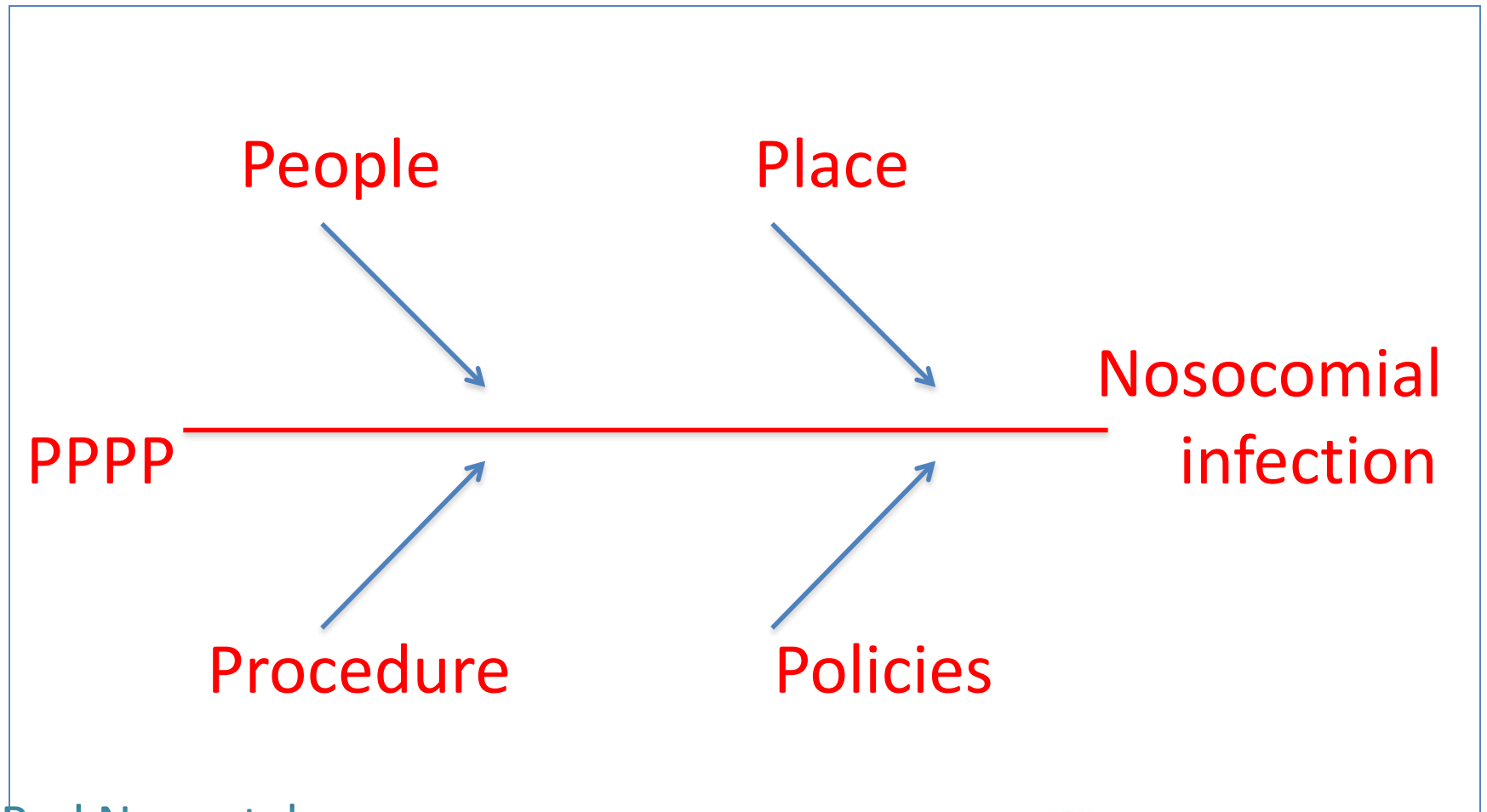
**% compliance handwash before EPIQ cycle. n=148**



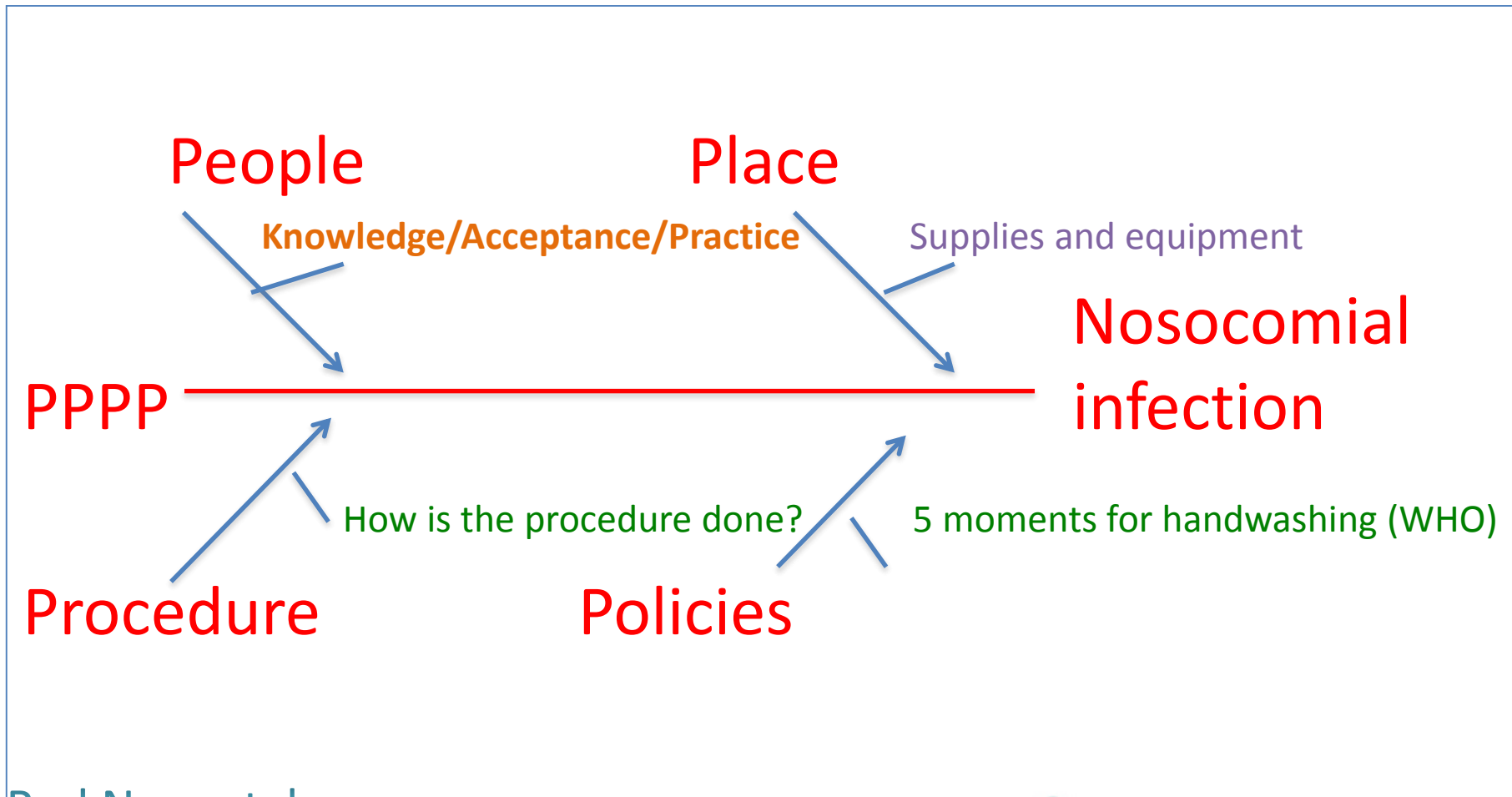
December 2014

Maria Jorgelina Neme. Maternidad Nuestra Señora de Las Mercedes. Tucumán. Argentina

# Step 1: fishbone



# Step 1



## Strategic Team Working According to Local Needs

- Doctors
- Nurses
- Infectologists
- Microbiologist
- Respiratory Therapist
- Pharmacist
- Nutritionist
- Parents
- **Administrative staff**
- Dynamic group:  
Newcomers

# Required Team Knowledge

- EPIQ strategy
- Local and Network information:

Indicators

Problems identified

Weaknesses

Solutions

- Expected benefits and results



# Who do we need in the team?

The EPIQ Team includes one person of the administrative staff to ensure **permanent** availability of **Supplies and equipment**



Hospital Medical Director/Manager

# Clean hands campaign

## How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the handwash (steps 2-7): 15-20 seconds

Duration of the entire procedure: 40-60 seconds



## How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

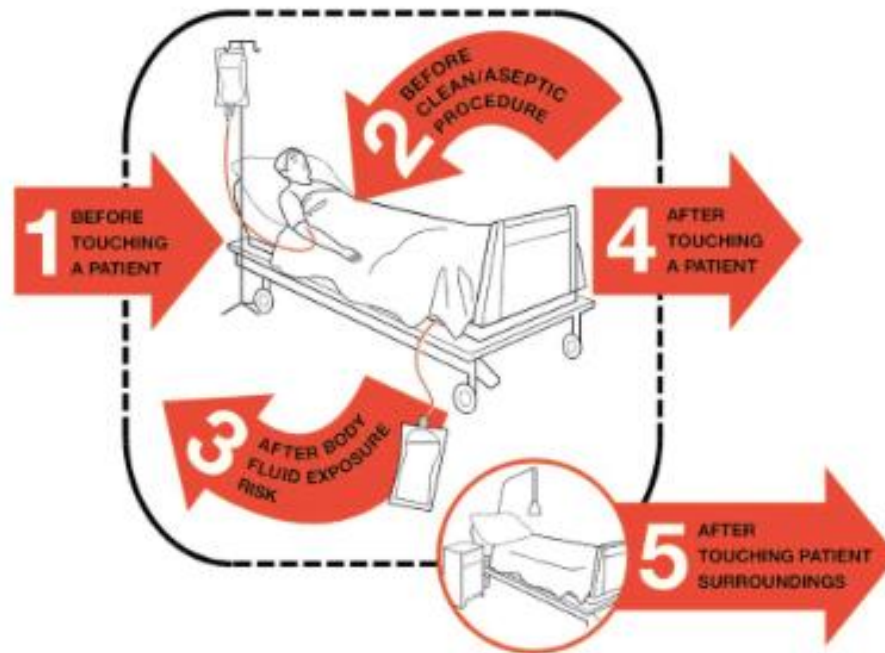
Duration of the entire procedure: 20-30 seconds



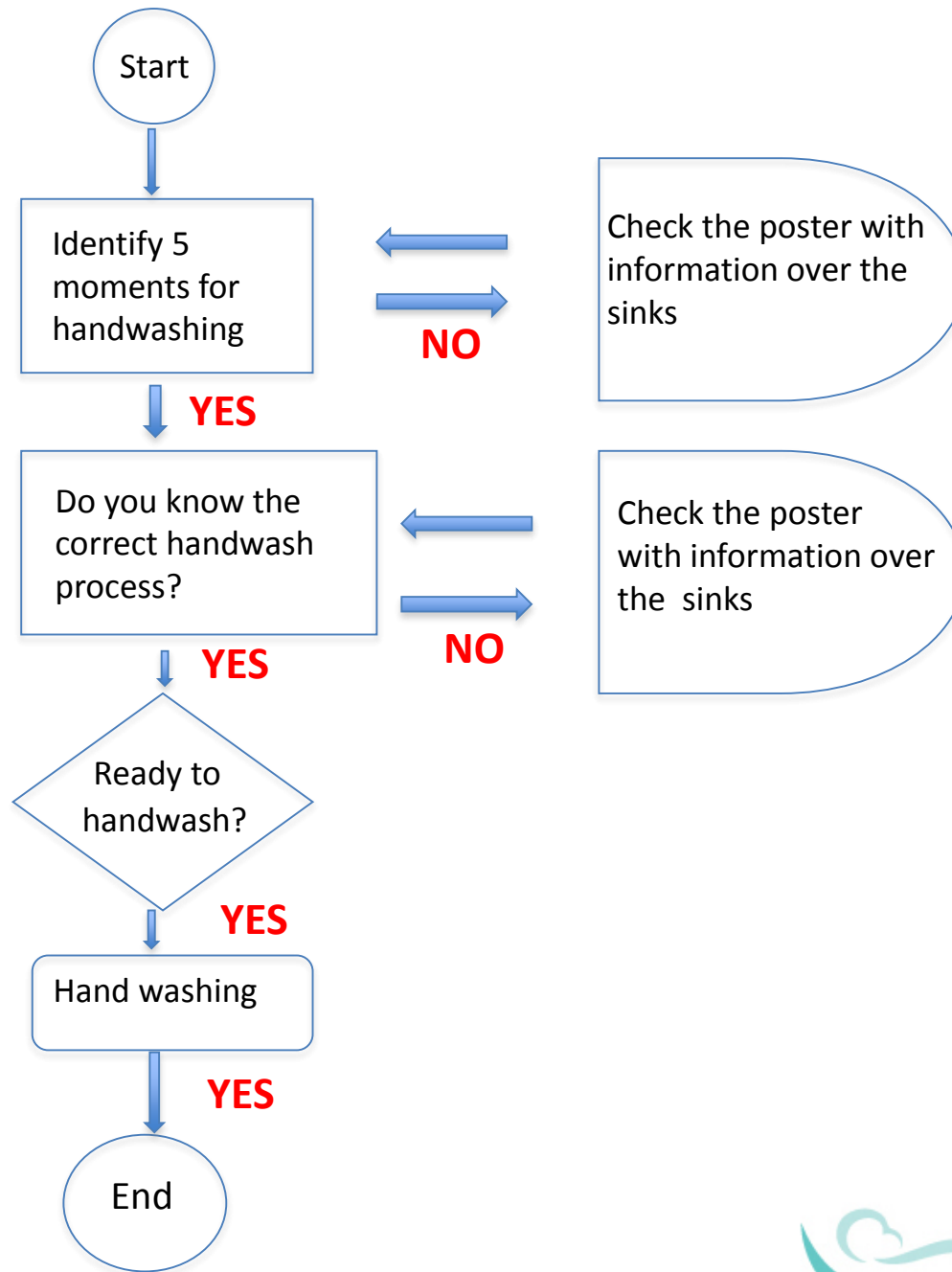
World Alliance for Patient Safety. Who Guidelines on Hand Hygiene in Healthcare (Advanced Draft): Global patient safety challenge 2005-2006: Clean care is safer care. World Health Organisation; 2005.

## Clinical situations

# Your 5 Moments for Hand Hygiene



# Step 2



## Step 3: **Indicators:** before and after the EPIQ cycle

### PROCEDURE

- Percentage of workers who recognize the five moments for handwashing
- Percentage of workers who correctly follow the process of handwashing

### OUTCOME

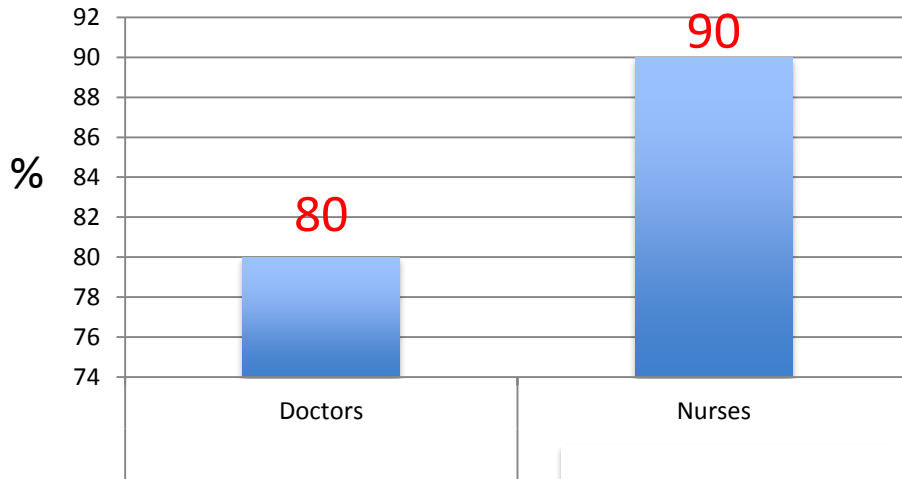
- Nosocomial infection rate

### OTHERS

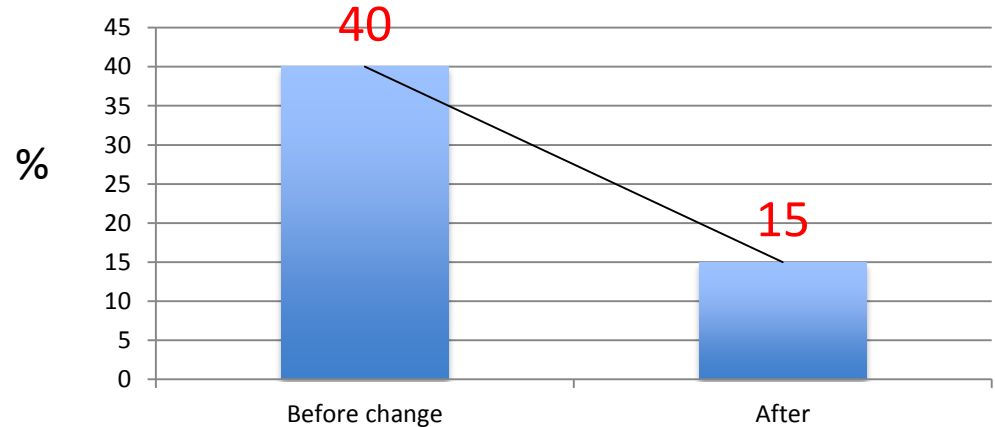
- Consumption of soap and paper towels

# Some initial local results

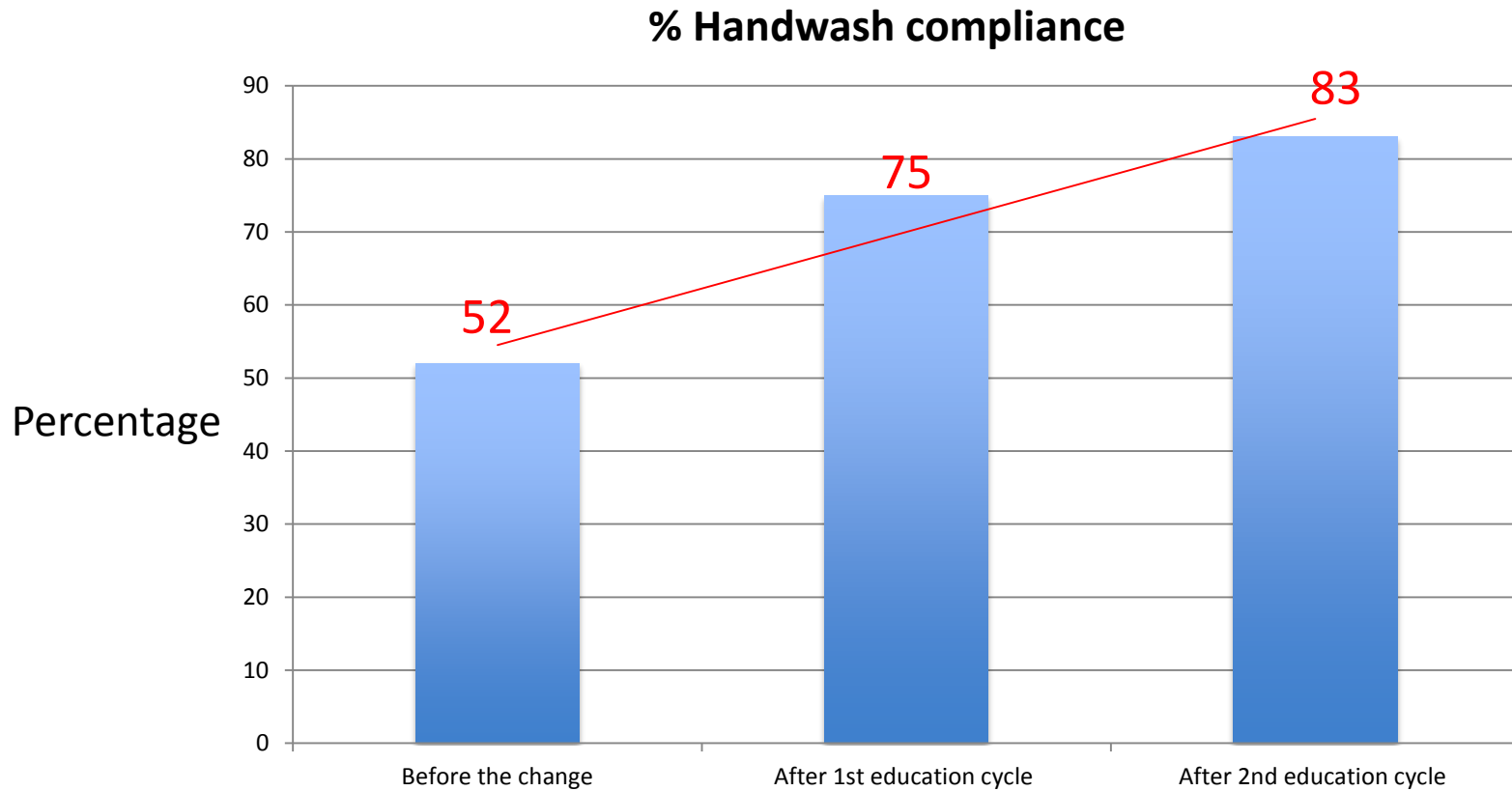
**% Handwash compliance after  
a 3 month cycle**



**% Positive Blood Culture**



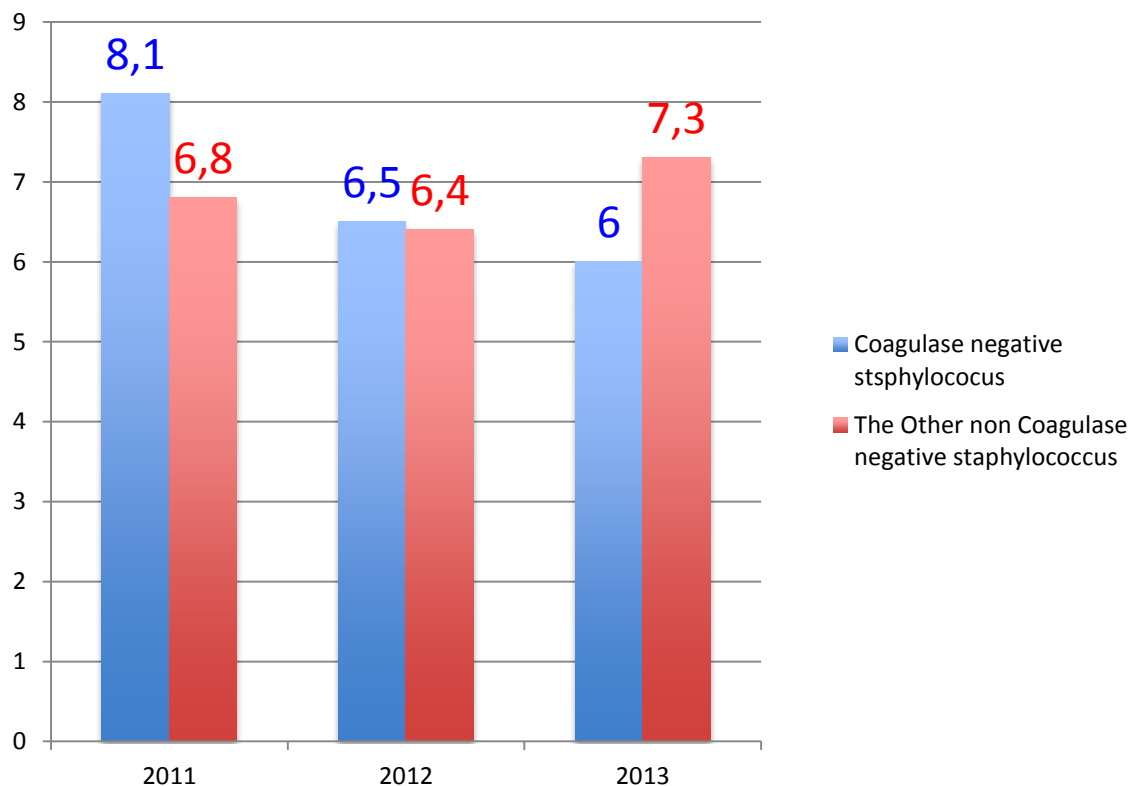
# Some initial local results



Fernando Aguinada, Tatiana Campoverde .Hospital Metropolitano. Ecuador

# Catheter-related infection in neonates < 33 weeks. SIBEN

## Infection rate per 1000 days catheter



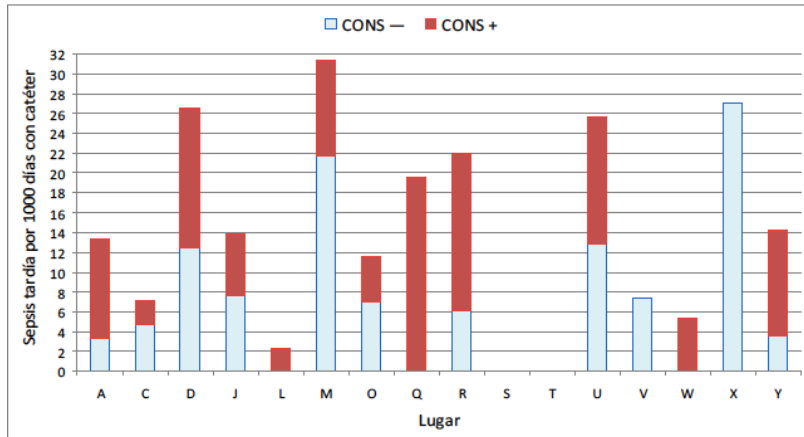


# Catheter-related infection in neonates < 33 weeks. SIBEN NN

## Infection rate per 1000 days for each NICU

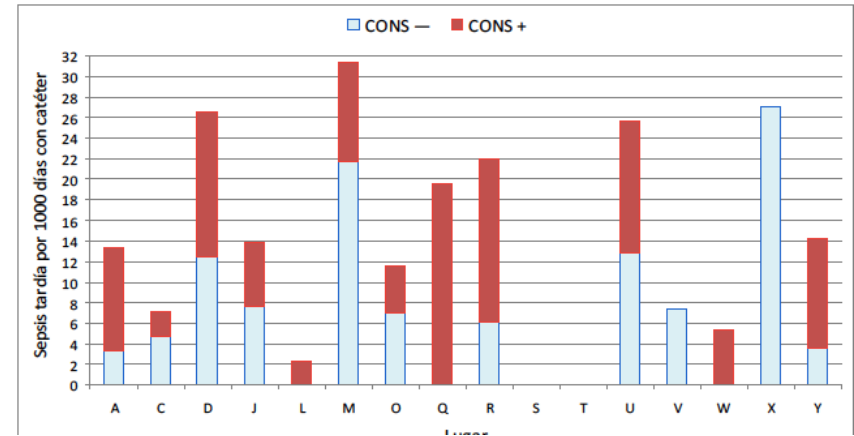
2011

Sepsis de comienzo tardío por 1000 días de catéter central \* en niños < 33 semanas de EG

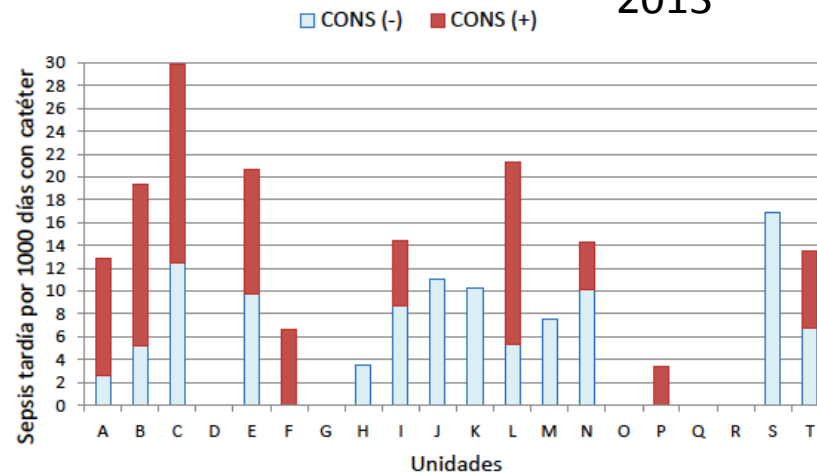


2012

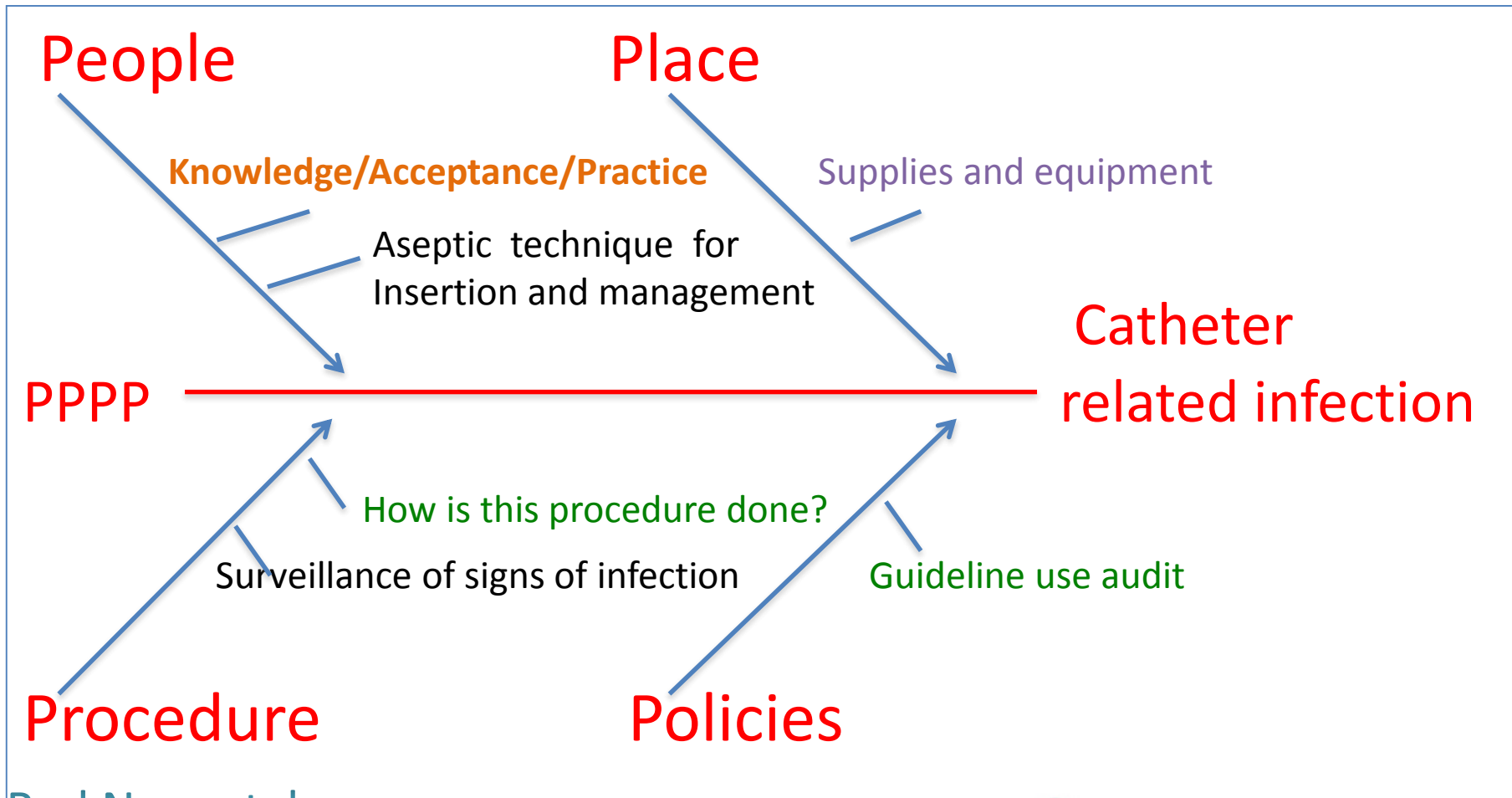
EG



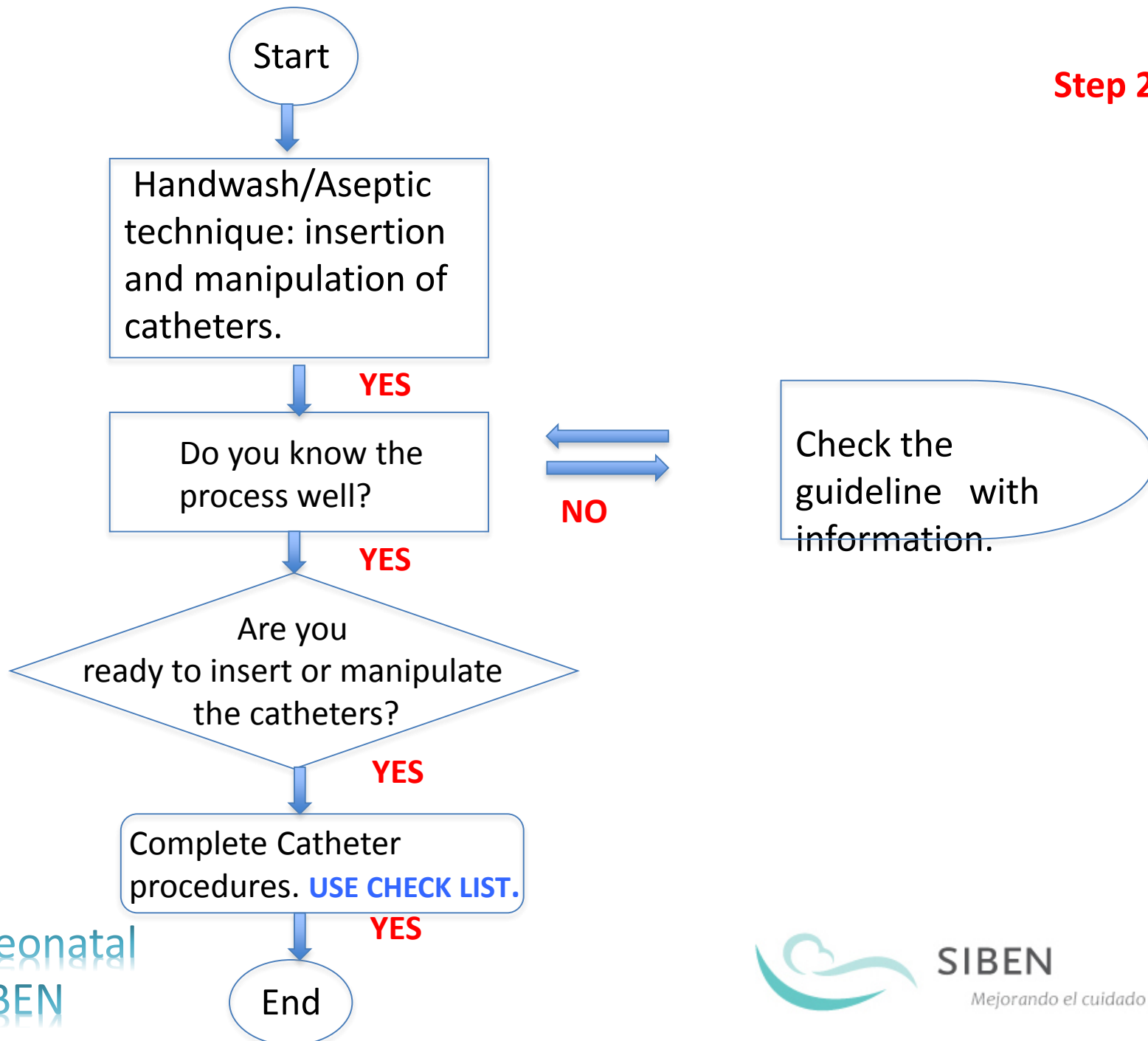
2013



# Step 1



**Step 2**



# Some local results after the cycles

Training in catheter insertion

71/76 nurses trained = 96% <sup>1</sup>

% Guideline compliance for insertion and maintenance of central catheters = 85% <sup>2</sup>

1. María Inés Martinini, Maternidad Nuestra Sra. De las Mercedes, Tucumán, Argentina

2. Maricel Mariani, Hospital de las Malvinas. Argentina



NEXT EPIQ May, 2015. Tucuman. Argentina



Thank-you



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**SIBEN**

*Mejorando el cuidado neonatal*