



Trained birth attendants in Mexico: How do professional midwives, obstetric nurses, and general physicians rank compared to WHO evidence based practice guidelines

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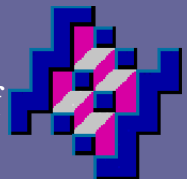
Background:

- Proportion of deliveries attended by physicians increased from 55% to 88% over last 30 years.
 - Equally significant drop in maternal mortality has not occurred
 - Physicians in rural areas traditionally little experience, low quality, high turnover
- Question:
- **Why not employ obstetric nurses and/or professional midwives in rural clinics?**

Response:

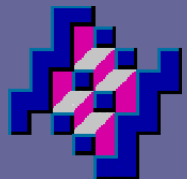
- **Where is the evidence?**

REF:1997 WHO Safe Motherhood. *Care in normal birth: A practical guide*. Report of Technical Working Group



Secific Objective:

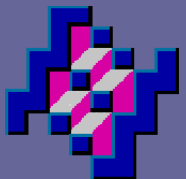
- Identify and compare quality of care provided by obstetric nurses, professional midwives, and general physicians during:
 - Initial assessment and hospital admission
 - During labor and delivery
 - Immediately post partum



Background: *WHO Technical working group guide to normal birth* (evidence based practices)

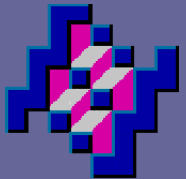
- Practices which have been demonstrated to be useful and should be encouraged
- Harmful or ineffective practices which should be eliminated:
- Practices which should be used with caution in light of insufficient evidence to support continuation or elimination of use
- Widespread use of inappropriate practices which should be reduced

REF:1997 WHO Safe Motherhood. *Care in normal birth: A practical guide*. Report of Technical Working Group



Methods

- ❑ Transversal observational study with direct observation of deliveries in 5 hospitals
- ❑ Data collection: (Access)
 - Direct observation
 - Chart review
- ❑ Total of 2566 deliveries, 1508 vaginal, 1183 observed vaginal



Created 5 Indices: 4 based on evidence based practices/ 1 on obstetric outcomes

1. Favorable practices on admission to hospital
2. Favorable practices during labor, delivery and immediate postpartum period
3. Harmful practices or those used excessively during labor and delivery
4. Obstetric outcomes
5. Newborn favorable practices

INDEX VARIABLES

Favorable practices on admission to hospital

Physical exam
Ask how the woman feels
Discuss diagnosis
Discuss treatment options

Favorable practices during labor, delivery and immediate postpartum period

Labor (1st stage):

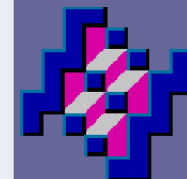
Offer oral hydration
Use non pharmacologic methods for pain control
Allow woman to ambulate
Complete partogram

During delivery (2nd stage):

Use non supine position during delivery
Skin/skin contact mother/infant

Placenta delivery (3rd stage):

Gentle traction on the cord
Administer oxytocin postpartum
Examine the placenta



INDEX VARIABLES

Harmful practices or those used excessively during labor and delivery

Labor:

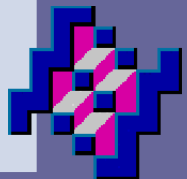
Use of systemic agents to control pain
Routine use of epidural anesthesia
Fasting
Enema
Shaving of pubic hair
Administration of IV liquids
Use of oxytocin pre-partum
Early rupture of membranes

Delivery:

Routine use of supine position
episiotomy

Third stage:

Limpieza uterina



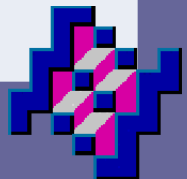
INDEX VARIABLES

Obstetric outcomes

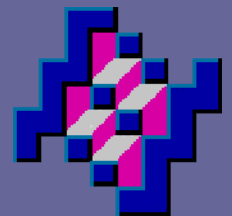
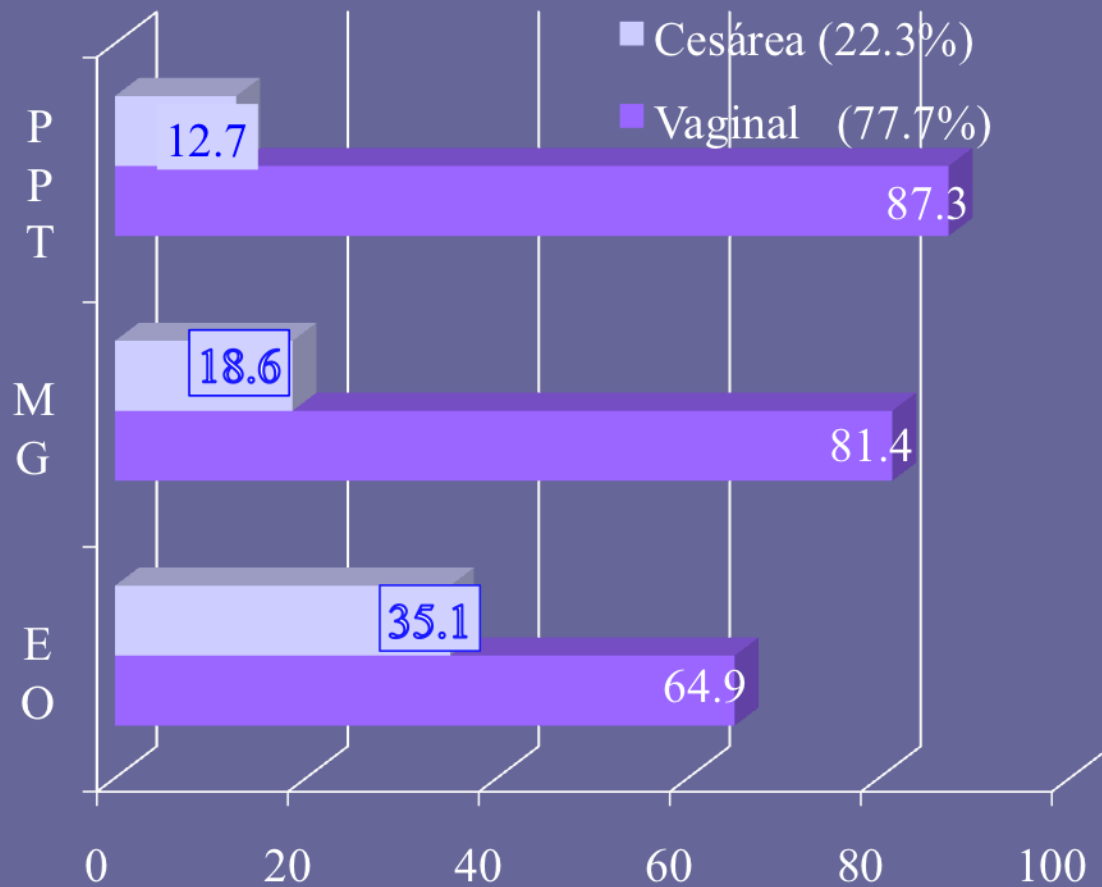
Apgar at five minutes > 7
Newborn weight 2500-4000 gms.
No need for incubator

Newborn favorable practices

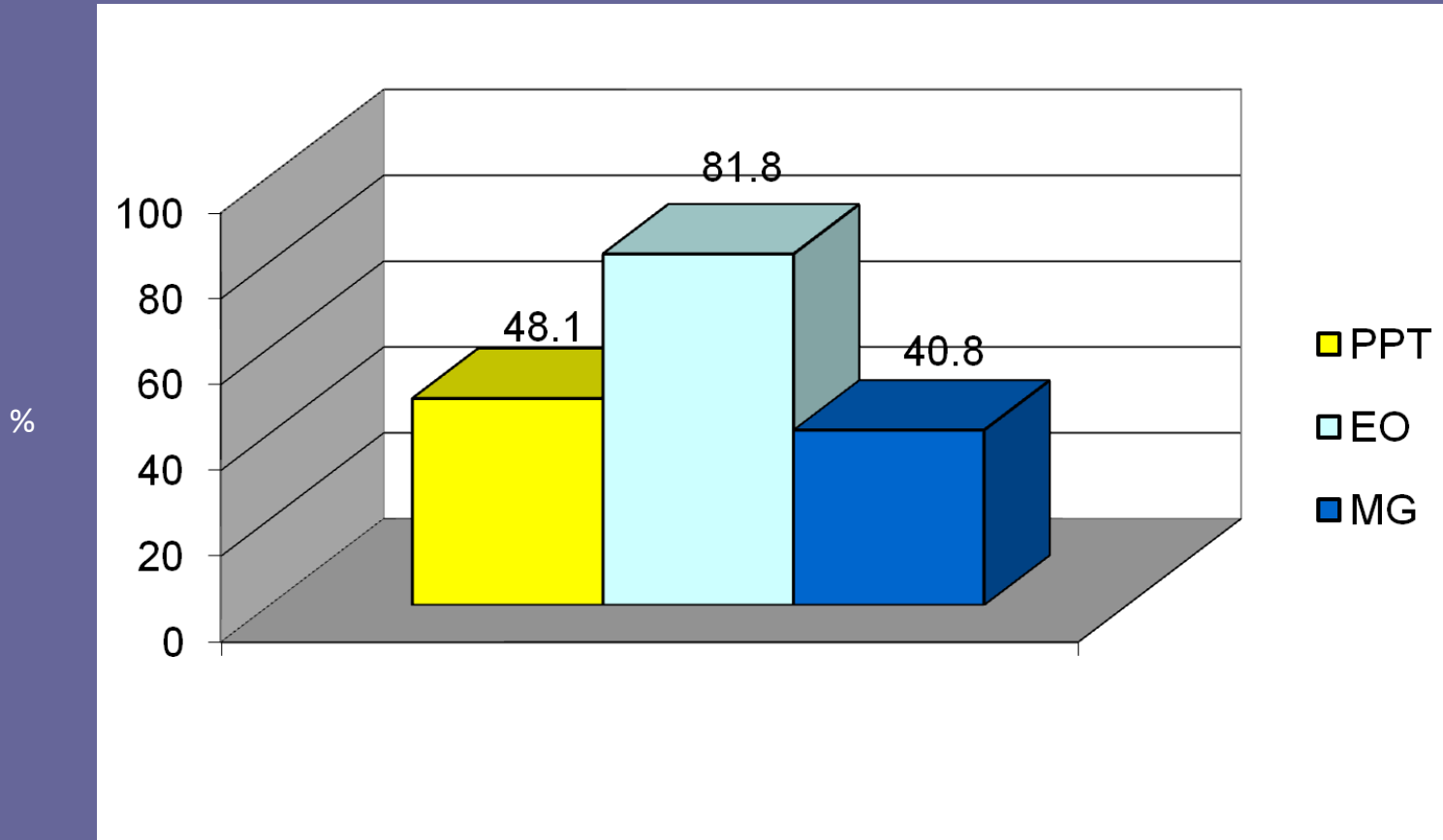
Application of vitamin K
Antibiotic prophylaxis for conjunctivitis
Breastfeeding prior to hospital discharge



Distribution of mode of delivery by provider type

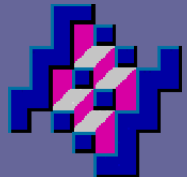


Results: 1) Favorable practices on admision to hospital

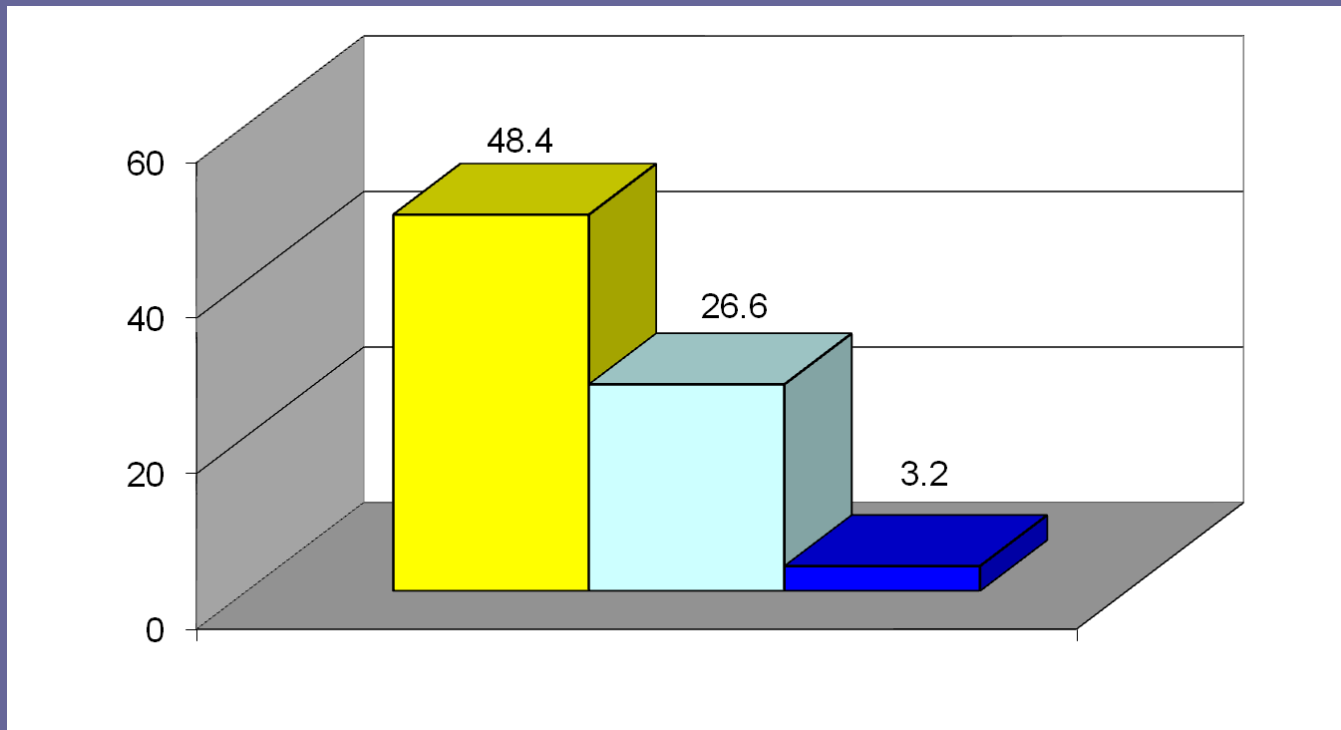


$\chi^2_{(2)}$ Pearson = 70.7, $p = 0.000$

V de Crammer = 0.360

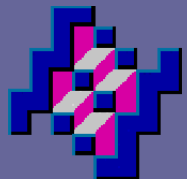


Results: Favorable practices during labor, delivery and postpartum

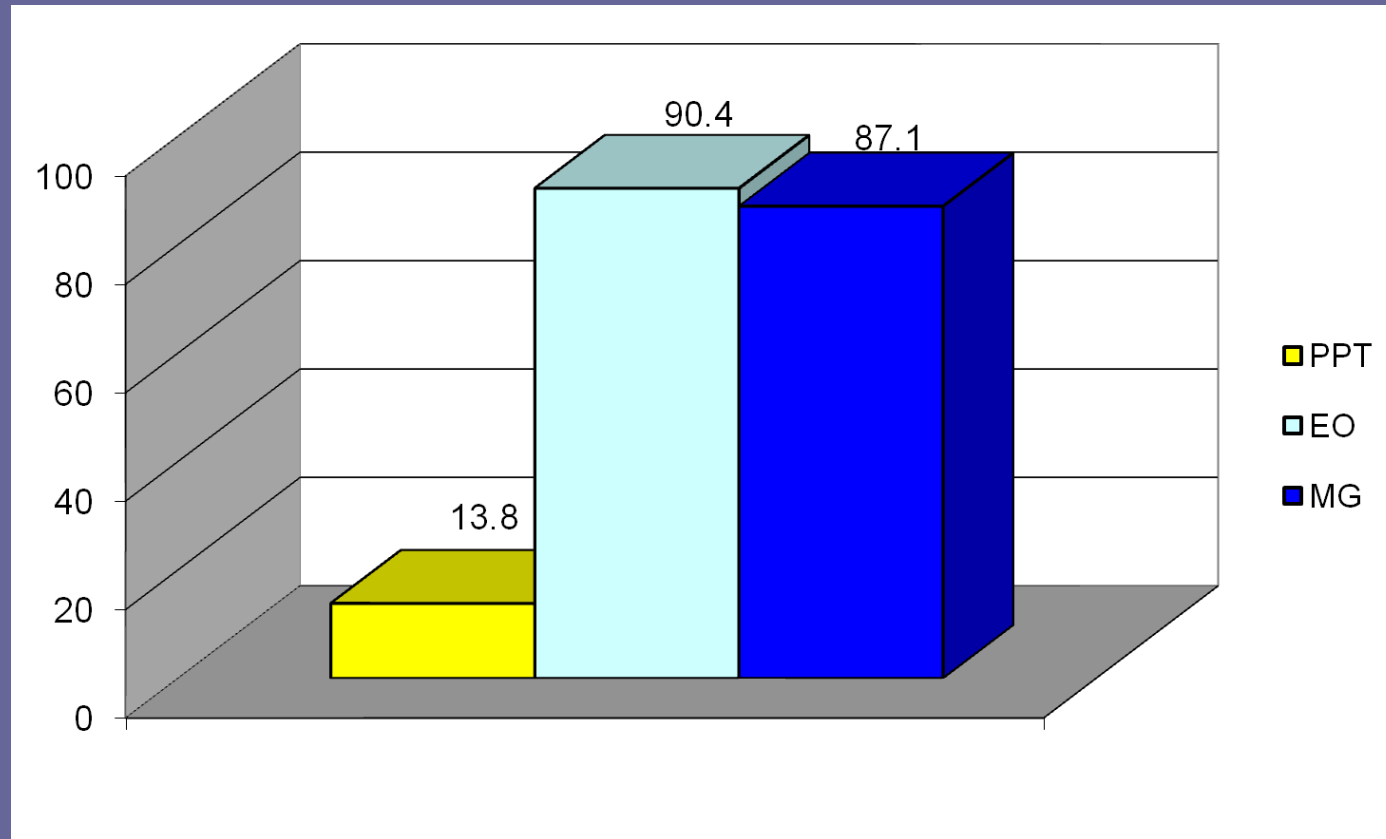


$\chi^2_{(2)} \text{ Pearson} = 169.2, p = 0.000$

V de Crammer = 0.466

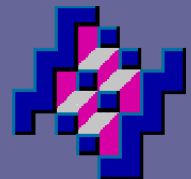


Results: Harmful practices or those used excessively during labor and delivery



PM
ON
GP

PPT
EO
MG



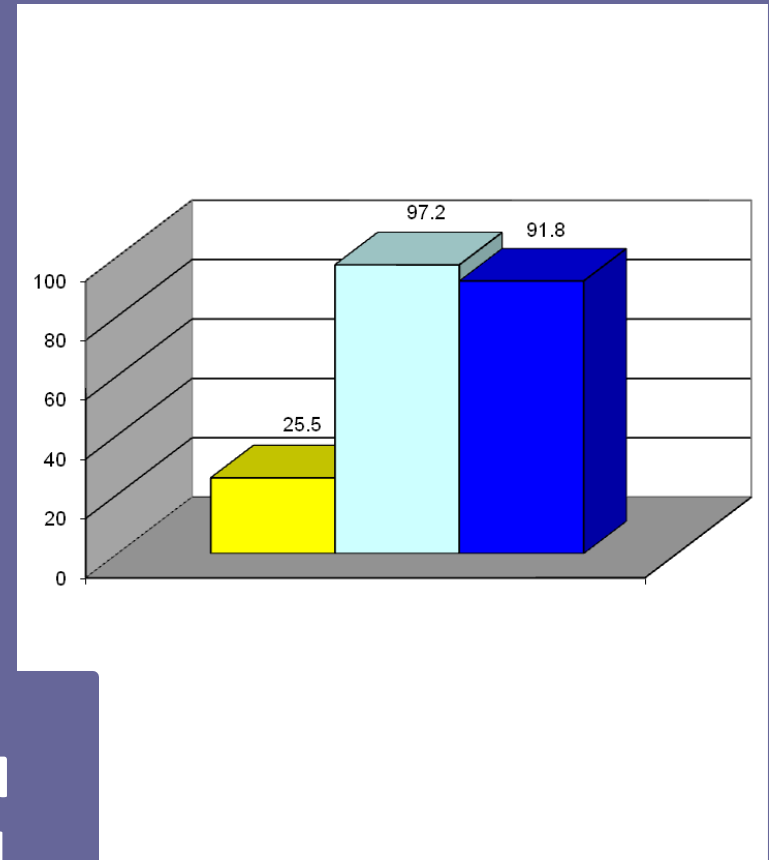
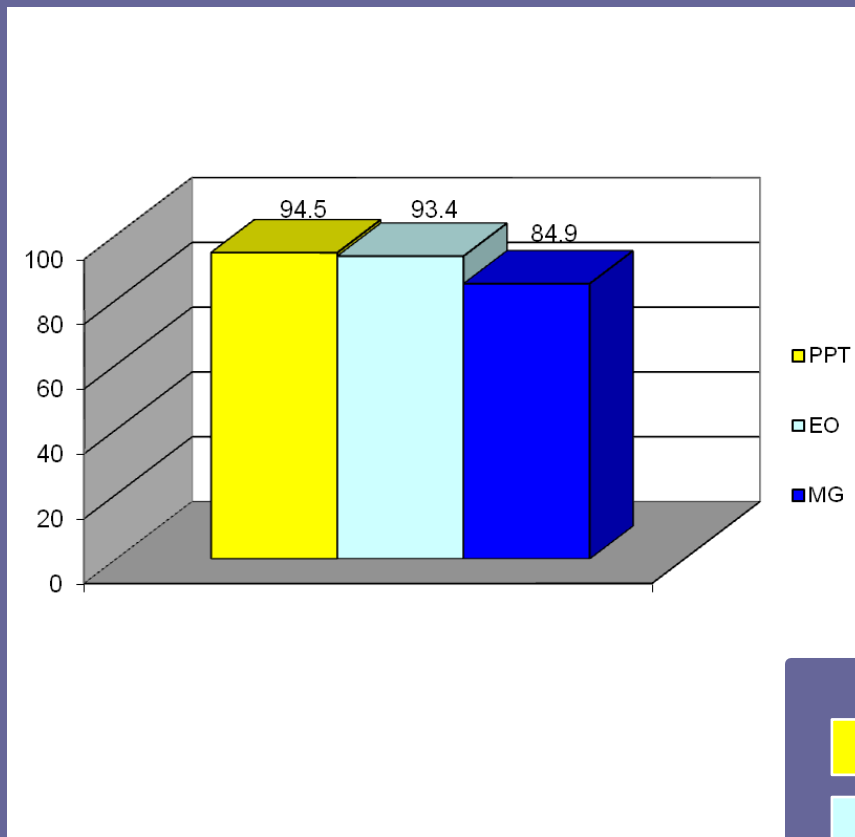
$\chi^2_{(2)} \text{ Pearson} = 311.3, p = 0.000$

V de Crammer = 0.641

Results:

Obstetric outcomes

Favorable newborn practices



PM
ON
GP

$\chi^2_{(2)}$ Pearson = 16.8, $p = 0.000$

V de Crammer = 0.137

$\chi^2_{(2)}$ Pearson = 388.1, $p = 0.000$

V de Crammer = 0.658

Conclusions

Obstetric Nurses:

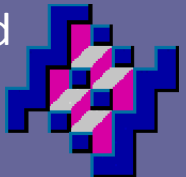
- High level of favorable practices on admission (82%)
- High level of favorable newborn practices (97%)
- High level of harmful and excessively used practices (90%)

Professional Midwives:

- Highest level of favorable practices during labor, delivery and immediate post partum (48%)
- Low level of harmful and excessively used practices (14%)
- Low favorable newborn practices (26%) due to lack of protocol for vitamin K use

General Physicians:

- High level of favorable neonatal practices (92%).
- Only 3% perform the recommended favorable practices during labor delivery and postpartum .
- 87% harmful or excessively used practices.



Next Steps

1. Study provided support to conduct RCT of these provider types in rural primary clinics that attend deliveries
2. Aim to:
 - compare adherence to official norms and evidence based practices
 - Compare volume and type of visits
 - Compare volume and type of referrals
3. Preliminary results are yielding overwhelmingly support for integration of non physician providers
4. State-based governments slow and reluctant to implement.

