## Argentina's Plan Nacer: Enabling a Healthy Start for Babies Born into Poverty

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## Today....

• Context:

Why is Plan Nacer Unique?

Evaluation

# Priority: Improve Birth Outcomes of Babies Born into Poverty...

- Low Birth Weight
- Associated with poor
  - Health
  - Cognitive development
  - Education
  - Earnings
- Uninsured & little access to quality care

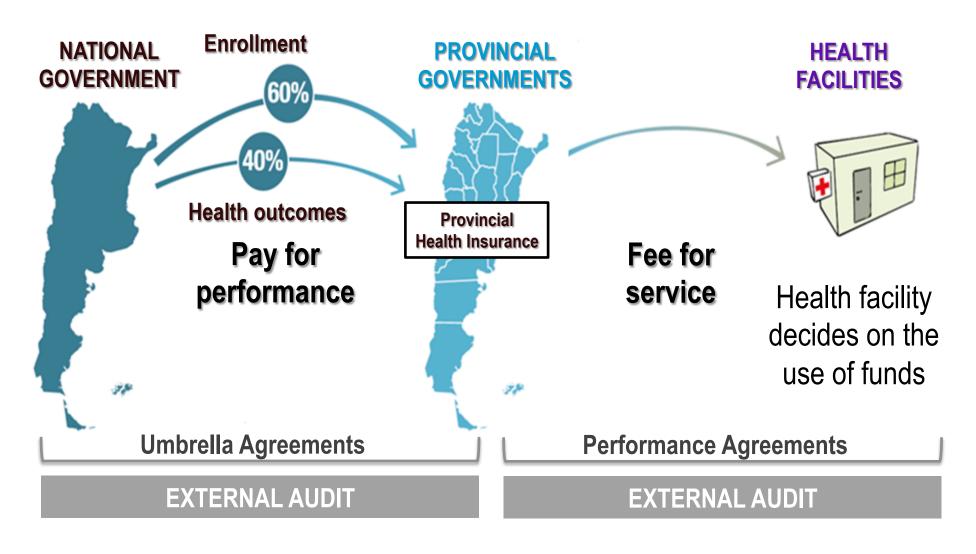


# Argentina's Plan Nacer

- Improve maternal and child health
  - Access to quality care
- Mechanisms
  - Target uninsured users of public facilities
  - More money to providers
  - Incentives



#### **Incentivzed Financing Scheme**



## Plan Nacer Similar to Other Programs

- Examples
  - Medicaid in United States
  - Seguro Popular in Mexico



- Local governments responsible for care of uninsured (poor)
  - Co-financed with national government
  - Capitation payment per enrollee

## Plan Nacer Capitation More Sophisticated

- Payment Per Beneficiary
  - Medicaid (100%)
  - Seguro Popular (100%)
  - Plan Nacer (60%)



- Plan Nacer Adds Performance Incentives
  - Health outcomes
  - Utilization and quality
  - Up to 40% of max payment

#### Innovative Features

- Nation to Province Capitation
  - Performance Incentives & Health Outcomes
- Few others use health outcomes incentives for local governments
  - Indonesia: villages incentives payments for nutrition outcomes
  - India: village incentives for open defecation free
- Many use FFS payments to providers

# Today....

- Context:
- Evaluation:
  - Questions
  - Data
  - Methods
  - Results



## Birth Certificate Data

- Universe in public hospitals
  - 6 northern Provinces
  - -2004-08
- Very large sample sizes
- Important rare outcomes
  - Low Birth weight
  - Neonatal mortality



#### Eligible and Beneficiary Population

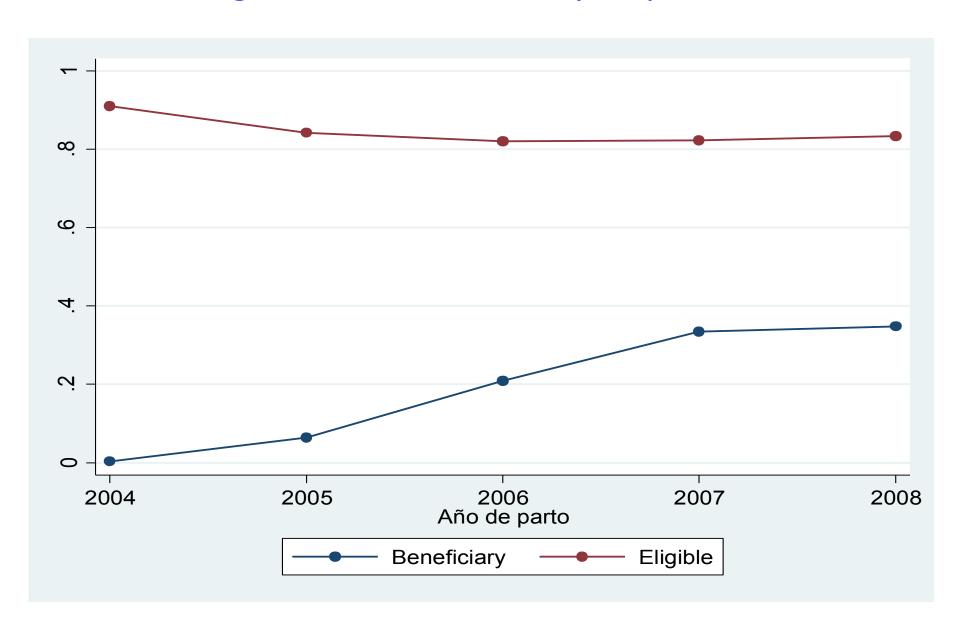
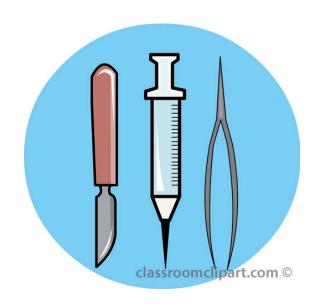


Table 2: Means of Outcome Indicators				
	2004	2008		
Care				
Prenatal Care in 1st 12 weeks	0.16	0.23		
Prenatal Care in 1st 20 weeks	0.58	0.65		
Number of Prenatal Care Visits	4.42	4.90		
Tetanus Vaccine	0.73	0.67		
Caesarian Section	0.21	0.22		
Health Outcomes				
Stillbirth	0.01	0.01		
Birth Weight (kilos)	3.24	3.23		
Low Birth Weight (<2500 gm)	0.08	0.09		
APGAR Score at 5 Minutes	8.75	8.78		
Neonatal Mortality/1000 Births	9.73	6.77		

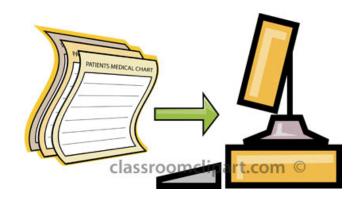
#### **Evaluation Objectives:**

Impact of a clinic enrolling in Plan Nacer on outcomes of..

- all patients regardless beneficiary status
  - (Intent to Treat):
- beneficiary patiens
  - (Treatment on The Treated):
- non-beneficiaries patients
  - (Spillover)

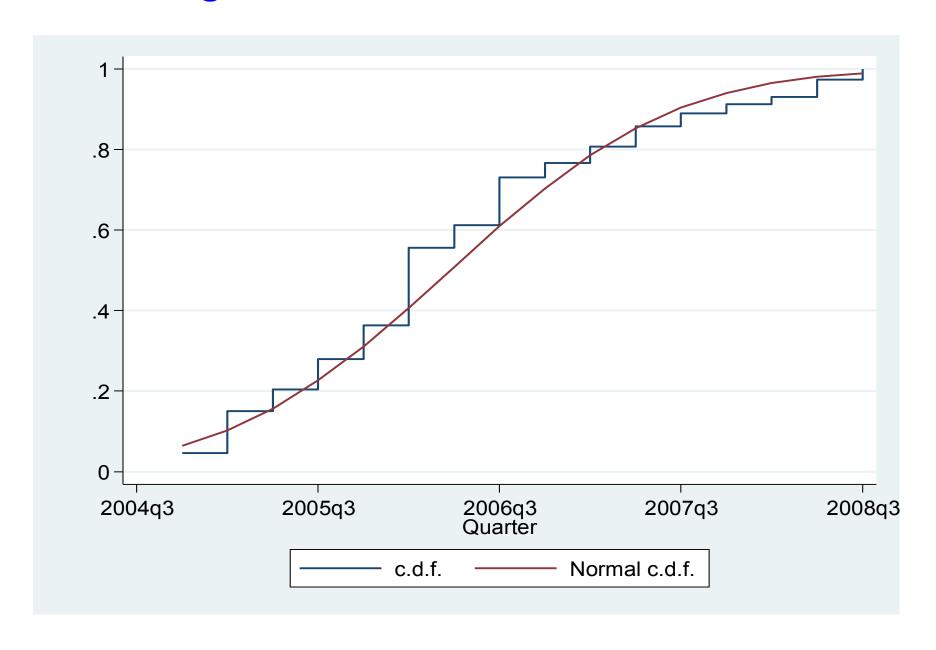


## Methods

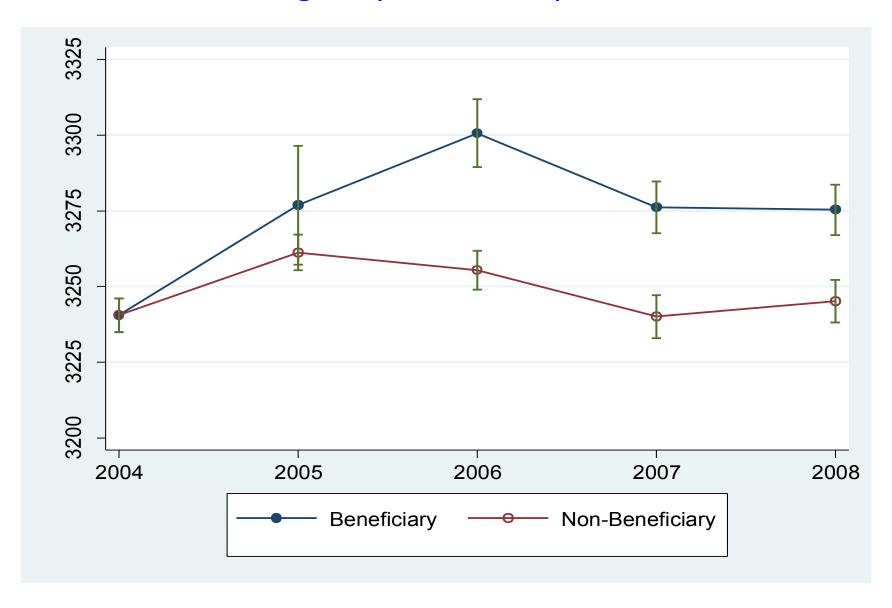


- ITT: Difference in Differences
  - Phased clinic enrollment over time
  - Clinic and province-time fixed effects
  - Balance and pre-intervention trend tests
- TOT & Spillover: IV Difference in Differences
  - Clinic enrolled
  - Time enrolled
  - Demographics\*enrollment

#### Timing of Clinic Enrollment into Plan Nacer



#### Mean Birth Weight by Beneficiary Status Over Time



#### Birth Weight Event History Analysis

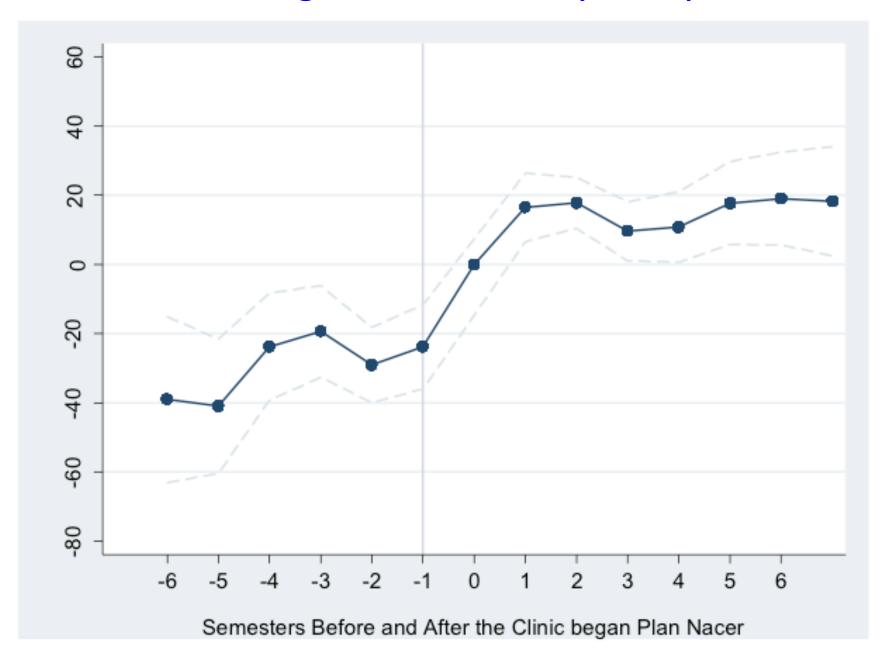


Table 4: Impact of Plan Nacer on Birth Outcomes

	Still Birth	Birth Weight (grams)	Low Birth Weight	APGAR (5 min)
A. Intent-to-Treat				
Clinic on Plan Nacer	-0.003***	23.1***	-0.01***	0.03**
Non-treatment Mean	0.009	3226.1	0.09	8.75
B. Treatment-on-Treated				
Plan Nacer Beneficiary	-0.009***	69.5***	-0.02***	0.09***
Non-Beneficary Mean	0.010	3224.6	0.09	8.75

Table 3: Impact of Plan Nacer on Prenatal Care Utilization and Quality

	Prenatal Care Initiated in 1 <sup>st</sup> 12 weeks	Prenatal Care Initiated in 1 <sup>st</sup> 20 weeks	Number Prenatal Care Visits	Tetanus Toxoid Vaccine	Cesarean Section
A. Intent-to-Treat					
Clinic on Plan Nacer	0.00	0.00	0.15***	0. 034***	-0.02**
Mean of Non-treated	0.19	0.61	4.50	0.79	0.23
B. Treatment-on-Treate	ed				
Plan Nacer Beneficiary	0.02	0.01	0.68***	0.105***	-0.06***
Mean of Non-treated	0.19	0.61	4.45	0.78	0.23

Table 5: Impact on Neonatal Mortality

<del>_</del>		
	Model 1	Model 2
A. Intent-to-Treat		
Clinic on Plan Nacer	-0.002**	-0.000
Clinic on Plan Nacer * LBW		-0.010**
LBW		0.062***
Non-Beneficary Mean	0.009	0.009
Non-Beneficary Mean/LBW		0.065
B. Treatment on the Treated		
Plan Nacer Beneficiary	-0.007**	-0.001
Plan Nacer Beneficiary * LBW		-0.033***
LBW		0.062***
Non-Beneficary Mean	0.010	0.010
Non-Beneficary Mean/LBW		0.065

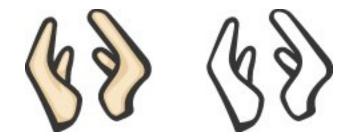
#### How Plan Reduced Neonatal Mortality

- Neonatal mortality all from LBW babies
- Lower by
  - Preventing LBW
  - Better care for LBW babies



- Find
  - 54% of reduction from preventing LBW
  - 46% from better care for LBW babies

#### Lessons



- Plan Nacer innovative
- Very effective
  - More & better prenatal care
  - Improved birth outcomes
  - Lower neonatal mortality
- Maybe a good model for others to consider
- Birth/Medical records valuable for evaluation

### Limitations

- Only 6 Provinces
- Limited data on Mechanisms
  - Utilization
  - Quality of care
- Nothing on postnatal



## **Next Steps**

- Cost-Effectiveness
- Expand to other Provinces
  - Combined with CCT
- Mechanisms
  - Detailed utilization
  - Quality of care
- Post natal care and outcomes



## Many Thanks to All

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