# Opening Prosperity Mexico: Socio-emotional trial

Last updated on February 20, 2017
**Status**
Draft

# Pre-trial Fields

## Trial Information

### General Information

**Title**

Opening Prosperity Mexico: Socio-emotional trial

**RCT ID**

**Initial registration date**

Not yet registered

**Last updated**

Not yet registered

### Location(s)

**Country**

Mexico

**Region**

State of Mexico

**Country**

Mexico

**Region**

States of Chiapas

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## Additional Trial Information

### Status

On going

### Start date

2016-12-01

### End date

2018-12-31

### Keywords

Health, Welfare

### Additional Keywords

Mobile Health, Pregnancy, Early Child Development, Behavioral

### JEL code(s)

I12, I15, I18, J13

### Secondary IDs

### Abstract

There has been a recent research growth in the intersection between health and behavioral economics. Some of this research has looked into the importance of the framing of the information delivered. Most of this work has focused on emphasizing the positive or negative effects of specific behaviors (e.g. quit smoking, improve diet, take a specific treatment, etc.). In this trial we will test framing in a different sense: encouraging beneficiaries to increase their effort without referring to the benefits or detriments of not following a specific action. As part of a government pilot program called Prospera Digital, pregnant women and mothers with babies less than two years old receive personalized SMS with healthcare information. Our trial consists on making a small variation to the pilot program with the objective of measuring the influence of motivational and socio-emotional content (MSE content) on womenâ€™s behavior and their babies health outcomes. Two sets of messages have been designed: (i) the first set of messages, the control arm, removes most MSE content possible from the government trial program without affecting the knowledge that the messages intend to transmit; (ii) the second set, the treatment arm,

exacerbates the MSE content without adding healthcare information.

**External Link(s)**

# Sponsors & Partners

## Sponsor(s)

**Sponsor name**

Johnson & Johnson

**Sponsor location**

United States

**Sponsor Url**

https://www.jnj.com/our-giving/saving-and-improving-lives

**Sponsor name**

UNICEF

**Sponsor location**

United States

**Sponsor Url**

https://www.unicef.org/

## Partner(s)

**Name**

National Digital Strategy team of the Office of the President

**Type**

government

**Url**

https://www.gob.mx/mexicodigital

**Name**

UNICEF

**Type**

ngo

**Url**

https://www.unicef.org/innovation/

**Name**

Instituto de Investigacion para el Desarrollo con Equidad (EQUIDE)

**Type**

**Url**

http://www.iidsesuia.mx/

**Name**

Mexican Ministry of Health

**Type**

government

**Url**

https://www.gob.mx/salud/

**Name**

Mexican Program for Social Inclusion (PROSPERA)

**Type**

government

**Url**

http://www.gob.mx/prospera

### Name

Mexican Social Security Institute (IMSS)

### Type

government

### Url

https://www.imss.gob.mx/

### Name

Telefonica Movistar

### Type

private_company

### Url

https://www.movistar.com.mx/

### Name

Telcel

### Type

private_company

### Url

https://www.telcel.com/mundo_telcel

### Name

BabyCenter

### Type

private_company

**Url**

https://www.babycenter.com

**Name**

Que Funciona para el Desarrollo (QFD)

**Type**

ngo

**Url**

https://qfd.org.mx/

# Experimental Details

## Interventions

**Intervention(s)**

The trial is built based on a pilot program, Prospera Digital, that seeks to improve the delivery and impact of health services provided to pregnant women and mothers of babies less than two years old that are recipients of a Federal poverty program in Mexico known as Prospera (previously known as Progresa and Oportunidades). Prospera Digital was designed with the purpose of improving maternal health, birth outcomes and early child development of Prospera beneficiaries through timely and personalized SMS with healthcare information. It consist of a two-way SMS information tool using RapidPro, an open source SMS tool designed by UNICEF. The messages were personalized and tailored to the specific circumstances of each participant using three sources of information: beneficiariesâ€™ response to messages, Prospera administrative information, and clinical history information.

This trial will only be implemented in a subsample (two States) of the overall Prospera Digital program. The trial consists on making a small variation to the main program being piloted with the objective to measure the influence that motivational and socio-emotional content (MSE content) have in the beneficiariesâ€™ reaction to the messages. MSE content includes: referring to women by their name, congratulating them for specific actions, motivating them by noting that some actions / habits might be difficult to achieve but worth doing, challenging and motivating them to reach specific goals. The purpose is to determine if adding MSE content changes womenâ€™s behavior and the extent to which they follow the original messagesâ€™ recommendations. This study will greatly contribute to the literature by giving robust evidence of how important it is to transmit information in a friendly and motivational manner in order to improve its effectiveness.

The design of the trial involved creating two sets of messages that result from introducing variations to the Prospera Digital messages. Both sets of messages are identical in terms of the healthcare information content for pregnancy and for the first two years of life of the babies. However, they vary in terms of MSE content they have: (i) the first set of messages, the control arm, removes the most MSE content possible from the base program messages without affecting the healthcare information that the message intents to transmit; while in contrast (ii) the second set, the treatment arm, exacerbates the MSE content without adding further healthcare information. We refer to healthcare information as all the pre- and post-natal care content that gives suggestions to promote actions focused on improving health, advancing early-life development or preventing potential threats to health.

### Intervention Start Date

2017-02-01

### Intervention End Date

2018-12-31

## Outcomes

### Outcomes (end points)

Our outcome measures will be extracted from the following sources: A. SINAC (Subsistema de InformaciÃ³n sobre Nacimientos)- This is a country-wide birth registry that is administratively recorded by the Health Ministry and made available through the DirecciÃ³n General de InformaciÃ³n en Salud. The following measures will be used: 1. Weight of baby at birth (g) 2. Length of baby at birth (mm) 3. APGAR score (1-10) 4. Silverman score (1-10) 5. ICD-10 catalogued congenital diseases or complications. This registry is updated every two months. To evaluate potential indirect benefits, we will also use information from other births in the clinic. The information from SINAC will be collected at mid-2017 and again at the end of 2017. B. Prospera- We will request from Prospera information about compliance with their health conditionalities at an individual level. If this information cannot be made readily available, we will use public administrative information about the total bimonthly monetary amount awarded to the families of pregnant beneficiaries in treatment and control. This information is released by Prospera every two months and is available to the general public by law. Such monetary amount will be used to proxy the general compliance of families in Prospera Digital with the conditionalities set by Prospera. C. Primary-level Health Clinics- At the middle and end of the trial, medical records will be retrieved from all clinics in the trial for all beneficiaries in control and treatment arms. Such records will allow us to formulate the following outcome measures: 1. Total number of scheduled clinic visits 2. Attendance rate to scheduled clinic visits 3. Incidence of diseases during pregnancy and first two years of babiesâ€™ lives (by type of disease) 4. Percentage of women giving birth at clinics or hospitals 5. Percentage of women with full clinic record during pregnancy 6. Percentage of women with full battery of tests done during pregnancy (according to protocols) 7. Percentage of women with full (and incomplete) prenatal measurement follow-up (e.g. weight and height) 8. Percentage of women receiving pregnancy supplements 9.

Incidence of specific health problems (malnutrition, anaemia, pre-eclampsia, gestational diabetes, post-natal sepsis, etc.) 10. Vaccination records 11. Delivery of lactation information 12. Percentage of babies that had the neonatal screening done 13. Incidence of premature babies 14. Maternal mortality rate 15. Infant mortality rate 16. Unplanned hospital or clinic visits. This information is expected to be collected at July-August 2017 and again November-December 2017. D. RapidPro- This is the system that captures all the interactions that beneficiaries have with the platform that automatically sends messages. This information will be constantly (weekly) gathered and analysed mainly to follow-up the fidelity of implementation of the main treatment arm. The outcome measures are only gathered for the treatment groups and the following indicators are produced: 1. Intensity of participation by looking at the proportion of two-way messages that a beneficiary answers 2. Response rate of messages 3. Mistake rates for different kind of responses required 4. Proportion of beneficiaries not participating. 5. Knowledge by answering some questions sent E. Post-participation survey- A survey will be implemented to gather additional outcome measures that are either imperfectly measured in the other sources or non-existent: 1. Knowledge of pregnancy and newborn care 2. Diet 3. Supplement consumption 4. Breastfeeding practices (duration, problems, knowledge) 5. Planning for emergencies and birth 6. Women empowerment indicators 7. Health service satisfaction 8. Malnutrition and obesity rates in both the mother and the newborn 9. Size and weight of infants (measured, not self-reported) 10. Incidence of gastrointestinal diseases in infants 11. Incidence of risk conditions during pregnancy: tobacco and alcohol consumption 12. Self-reported development milestones reached, e.g. crawling, walking, babbling, etc. (date and success) 13. Use and trust in the content of the messages 14. Main source of information about pregnancy and baby care topics 15. Tests with children to measure different aspects of their development, such as gross and fine motor skills, language development, neurological development, signs of risk, etc. Tests such as MSCA, MacArthur and EDI (all of them already used in Mexico will be favored)

**Outcomes (explanation)**

# Experimental Design

## Experimental Design

A sample of 139 clinics from the Prospera Digital program in two states (Chiapas and the State of Mexico) was chosen. Women in the program are randomly assigned to the treatment or control arms at the individual level (see more details below). With these two groups, a randomized control trial is setup to give robust evidence about the potential effect of the MSE-content.

The socioemotional trial will run for at least six months. During that time beneficiaries will receive messages from the set they have been assigned to. Data will be collected from the SMS platform to allow us to measure response rates and from administrative and clinicâ€™s sources. Finally, a survey will be collected at the beneficiariesâ€™ homes. Using this data, we will compare outputs and outcomes from both groups to determine the effect of the MSE content. Nonetheless, given that the effects might be persistent, if successful, we will follow-up the project results for a longer period of time (pending on funding).

### Experimental Design Details

### Randomization Method

Women in the program are randomly assigned to the treatment or control arms at the individual level using coarsened exact matching. Women are matched based on three variables: (i) location of the clinic that they attend, (ii) being actively responding to messages and (iii) gestational age. Pairs of women with the same values for the three variables were formed. Within each pair, one women was randomly assigned to treatment while the other to the control group. Those women that cannot be assigned for not having a pair will be assigned in subsequent rounds. In the second round, pairs were formed only using characteristics (i) and (ii). As in round 1, one of the women in the pair was randomly assigned to treatment and the other to control. Unassigned women continued this process through subsequent rounds. The third round only uses characteristics (i) and (iii) to form pairs; the fourth, fifth and sixth rounds only used (i), (ii) and (iii), respectively. Finally, if any beneficiary was left unassigned after these rounds, she was randomly allocated to treatment or control without forming subsequent pairs.

### Randomization Unit

Individual.

### Was the treatment clustered?

No

## Experiment Characteristics

### Sample size: planned number of clusters

Women come from 139 clinics, however, as indicated above, the unit of randomization is the individual. Some clinics declined the invitation to participate. Those clinics will be invited for a second time. Therefore, the number of clinics might increase.

### Sample size: planned number of observations

663 women. If some of the clinics that declined the invitation decide to participate, this number might increase.

### Sample size (or number of clusters) by treatment arms

Control: 331 women
Treatment: 332 women

* If some of the clinics that declined the invitation decide to participate, these numbers might increase.

**Minimum detectable effect size for main outcomes (accounting for sample design and clustering)**

## Supporting Documents and Materials

### Documents

## IRB

INSTITUTIONAL REVIEW BOARDS (IRBs)

**IRB Name**

University of Bristol Faculty of Social Sciences and Law Committee for Research Ethics

**IRB Approval Date**

2015-12-07

**IRB Approval Number**

26101

## Analysis Plan

### Analysis Plan Documents

# Post-trial Fields

## Post-trial Information

### Study Withdrawal

This trial has not been withdrawn.

### Intervention

**Is the intervention completed?**

No

**Is data collection complete?**

# Data Publication

## Data Publication

**Is public data available?**

No

**Is there a restricted access data set available on request?**

## Program Files

**Program Files**

# Reports and Papers

## Preliminary Reports

## Relevant Papers