

**Researchers**

Pascaline Dupas  
Princeton University

Camille Falezan  
Massachusetts Institute of Technology

Seema Jayachandran  
Princeton University

Mark Walsh  
Stanford University

**Staff**

Stephanie Adjovu  
Research Coordinator

Salifu Amadu  
Country Director, Ghana

Kamal-Deen Mohammed  
Field Manager

Mubarik Yakubu  
Research Associate

**Timeline**

2021-2022

**Study Status**

Results

**Study Type**

Randomized Evaluation

**Sample Size**

1,408 new and expectant mothers

**Research Implemented by IPA**

Yes

NBER WORKING PAPER SERIES

INFORMING MOTHERS ABOUT THE BENEFITS OF CONVERSING WITH INFANTS:  
EXPERIMENTAL EVIDENCE FROM GHANA

Pascaline Dupas  
Camille Falezan  
Seema Jayachandran  
Mark P. Walsh

Working Paper 31264  
<http://www.nber.org/papers/w31264>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
May 2023

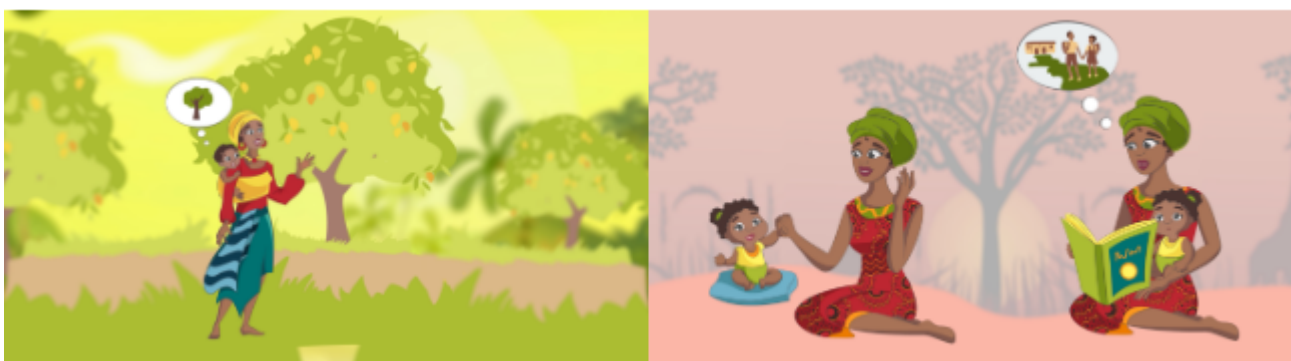
This research was supported by a grant from the World Bank's Strategic Impact Evaluation Fund. It builds on pilot work made possible by funding from the Weiss Fund. We gratefully acknowledge their support. These funders had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript. We thank IPA Ghana for their partnership. The research protocol was approved by the Ghana Health Service Ethical Review Committee and by the Stanford University and Princeton University IRB. This RCT was registered as AEARCTR-0007161. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2023 by Pascaline Dupas, Camille Falezan, Seema Jayachandran, and Mark P. Walsh. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Academic Paper

## Increasing Communication Between Mothers and Infants in Ghana



Animated video shown to mothers demonstrating the benefits of infant-directed speech

**Researchers working with IPA Ghana and the Ghana Health Service conducted a randomized evaluation that showed that a low-cost information campaign in Ghana increased mother-reported conversations with infants, infant language skills, and infant cognitive development. The intervention would cost USD0.45 per child at**

## **scale, making it cost-effective in improving early childhood development.**

Evidence suggests that actively engaging and talking to infants, known as infant-directed speech, leads to stronger language and cognitive development.<sup>1</sup> However, parental engagement in this manner varies across countries and income levels.<sup>2</sup> This may be due to differing expectations of its benefits. In Northern Ghana, only 11 percent of mothers know that children benefit if they are talked to starting at birth.

Researchers working with IPA Ghana and the Ghana Health Service conducted a randomized evaluation to determine whether an information campaign could encourage new and expectant mothers to have more conversations with their infants. The campaign consisted of an animated video shown to mothers at health clinics outlining the importance of engaging with infants and a take-home wall calendar to provide a visual reminder.

The evaluation involved 1,408 new and expectant mothers at public health clinics, divided into two groups: one watched the video and received the calendar, and the other did not watch the video and received an unrelated calendar. Researchers evaluated the effects on mother-infant conversations and infant cognitive development six to eight months later through mother reports, infant cognitive tests, and day-long recordings. Researchers also assessed the immediate effect of watching the video on mother-infant conversations. At the study's end, they randomly assigned 225 mothers from the original no-video group to watch the video and measured the effects the next day via recordings.

Mothers who watched the animated video at the health center reported increased belief in the importance of conversing with their infants, conversation frequency, and infant language skills after six to eight months. There were also suggested increases in infant cognitive test scores and parent-infant conversations from the recordings. Mothers who watched the video only at the study's end spoke to their infants substantially more the next day, with significantly stronger effects than that observed after six to eight months. This suggests that learning about the benefits of infant-directed speech has a strong immediate impact on conversation frequency, improving infant cognitive development, but the effect fades over time. Altogether, the video and wall calendar would cost USD 0.45 per child at scale, making it cost-effective in improving early childhood development.

## **Sources**

<sup>1</sup> Weisleder, Adriana, and Anne Fernald. "Talking to children matters: Early language experience strengthens processing and builds vocabulary." *Psychological science* 24, no. 11 (2013): 2143-2152.

<sup>2</sup> List, John A., Julie Pernaudet, and Dana Suskind. *It all starts with beliefs: Addressing the roots of educational inequities by shifting parental beliefs*. No. w29394. National Bureau of Economic Research, 2021.

# Implementing Partner



**Ghana Health Service**