

TC Document

I. Basic Information for TC

▪ Country/Region:	URUGUAY
▪ TC Name:	Leveraging Technology and Behavioral Science Insights to Promote Development in the Early Years
▪ TC Number:	UR-T1257
▪ Team Leader/Members:	Lopez Boo, Florencia (SCL/SPH) Team Leader; Sanchez, Mario Alberto (SCL/SPH) Alternate Team Leader; Avila, Krysia A (LEG/SGO); Bermudez Plaza, Neili Carolina (SCL/SPH); Lima De Moraes, Vitoria (ORP/REM); Mendoza Centellas, Mariana Beatriz (ORP/GCM); Quintero Salleg, Claudia Patricia (SCL/EDU) Krysia A (LEG/SGO); Bermudez Plaza, Neili Carolina (SCL/SPH); Lima De Moraes, Vitoria (ORP/REM); Mendoza Centellas, Mariana Beatriz (ORP/GCM); Quintero Salleg, Claudia Patricia (SCL/EDU)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	N/A
▪ Beneficiary:	Uruguay
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding: Bernard Van Leer Foundation:	Cofinancing Special Grants(COF)
▪ IDB Funding Requested ¹ :	US\$340,249.00
▪ Local counterpart funding, if any:	US\$120,000.00 (In-Kind)
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	May 2021
▪ Types of consultants:	Individuals; firms
▪ Prepared by Unit:	SCL/SPH-Social Protection & Health
▪ Unit of Disbursement Responsibility:	SCL/SPH-Social Protection & Health
▪ TC included in Country Strategy (y/n):	Yes, aligned with country strategy.
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality

II. Objectives and Justification of the TC

- 2.1 This Technical Cooperation (TC) aims to improve early childhood development in Uruguay by leveraging the use of technology and behavioral science insights. The overall objective is to strengthen, empower and support parents in their caregiving role, and ultimately enhance children's development, by (i) reaching families through mobile apps and e-messages in obstetric and pediatric primary care settings and (ii)

¹ These funds will be administered by the IDB through a project-specific grant (PSG). Bernard Van Leer Foundation will contribute EUR 281,750 which is equivalent to US\$ 340,249 at the exchange rate of 1.21 as of January 18, 2021.

exposing families with infants and toddlers to a series of parenting e-messaging modules for two years.

- 2.2 Reaching out to women with timely information, resources, and support strategies before, during, and after pregnancy is one of the key steps towards the prevention of preterm births and infant morbidity and mortality, and towards the promotion of child development in general. The increasing availability of mobile technology and the insights of behavioral science offer the promise of enhancing access to available health resources and improving decision-making at the family level. Prior evidence from Uruguay has shown that mobile messaging programs targeting families at pre-school settings have a positive impact on the quantity and quality of parental investment. Because the health care clinic setting is universal, the expected effects of implementing this type of intervention are stronger than when these programs are implemented at early childhood centers.
- 2.3 Family environment in the first years of life is key to the child development. Parental investments determine the development of cognitive and non-cognitive skills and have higher returns the earlier it is the stage of childhood. Evidence shows that the poorest children receive fewer parental investments and that there is a correlation between the level of poverty and development of skills in early childhood. Although the literature shows evidence of positive effects of family programs, more evidence is needed to implement parenting programs at scale. A promising alternative is the use of information and communication technologies to inform, communicate, and educate families. Messaging programs with relatively low costs have been shown effective in a variety of settings including health outcomes. The content of messages seeks to mitigate the suboptimal decisions caused by present bias, inattention and the complexity of the parental role, status quo bias and the influence of negative identities.
- 2.4 Previous evidence in Uruguay shows that messages increase the quantity and quality of parental investment in families with children between 0 to 2 years old.² Bloomfield et al, find that the messaging intervention increased the frequency of parental investment and indicators of investment quality such as parental outreach for social support and parents' reflective capacity. However, there is fewer evidence on the capacity of this type of programs to sustain these behaviors and habits over time. More evidence is needed to understand the effects of longer programs and the variations needed according to the stage of development of the child.
- 2.5 The Bank and the Bernard Van Leer Foundation formalized a partnership to channel financing to support and commission research on behavioral barriers and interventions on Early Childhood Development. In order to contribute to the analysis about how to sustain behaviors and habits over time, the organizations decided to support this technical cooperation that builds on the ongoing work in Uruguay. The innovative and existing messaging intervention in Uruguay allows to compare and understand if the effects on the beneficiaries can be sustained over time.
- 2.6 Close coordination with the government is also an asset of this TC. In Component 1 ASSE will involve its primary care clinics for the recruitment of participants and ensure the design is aligned from the origin to the systems of the public administration. The management of the hospital where the intervention will be implemented has assigned

2 Balsa, A, Bloomfield, J and Cid, A. (2020) Using Behavioral Insights in Early Childhood Interventions: the Effects of Crianza Positiva E-Messaging Program on Parental Investment. A. Balsa, F. López Boo, J. Bloomfield, R. Valdés, A. Cid, M. González, M.P. Ferro (2020) The effect of Crianza Positiva e-messaging program on adult-child language interactions.

resources to accompany the monitoring of the project, considering it a priority project of the hospital. Also, public sector doctors who work both at the clinical and research levels will work on the project. In component 2, Uruguay Crece Contigo (UCC) has expressed interest in participating in the design from the start. Based on previous Positive Parenting research in Uruguay, UCC has shown great interest in applying this type of tool to follow up on their families. The message program in this TC, complemented by a remote assistance program that the institution plans to implement, would contribute to widely scale up the program. The results of this TC will be disseminated both at the UCC, CAIF, ASSE level, as well as at the level of other providers of early childhood care and perinatal care to improve the design of its policies or the implementation of new programs.

- 2.7 **Strategic alignment.** The project is also aligned with the IDB Group's Second Update to the Institutional Strategy (UIS) 2020-2023 (GN-2933-5), which prioritizes social inclusion and equity by supporting policies that strengthen investments in child development and therefore human capital throughout the lifetime. The TC is aligned with the Bank's prioritization of early childhood development as laid out in the Strategy on Social Policy for Equity and Productivity (GN-2588-4). The TC is also aligned with the Early Childhood Development Sector Framework Document (GN-2966-3) and the Skills Development Sector Framework Document (GN-3012-3), which promotes quality early childhood development services. Furthermore, this TC is aligned with the Bank's strategy with Uruguay 2016-2020 (GN-2836)³ in the strategic objective of improve access to initial education and the objective of improving access to and quality of social services for the most vulnerable children and young people (quintile I and II).⁴

III. Description of activities/components and budget

- 3.1 **Component 1: Boosting development through the leverage of technology and behavioral science during pregnancy and early childhood. (US\$223,237)** The objective is to enhance children's development, prevent preterm and low weight births, and child morbidity and mortality in obstetric and neonatal primary care settings. The program will: (i) Develop, implement, and test a pregnancy app and a messaging intervention with the purpose of improving prenatal care and pregnancy outcomes; (ii) Develop, implement, and test a parenting app and a messaging intervention with the purpose of improving post-natal care, enhancing family's parenting competences, and improving children's health and development; (iii) evaluate both interventions using a randomized control trial at the main maternity ward in the country, the Hospital Pereira Rossell with more than 6,000 births in 2019. Administrative records will be used to measure prenatal care visits, birth outcomes, and child morbidity and mortality. Measures of child development and of parental attitudes and behaviors towards child-rearing will be directly collected in this component.
- 3.2 **Component 2: Promoting better parenting practices via text and audio messages in the UCC population (US\$100,000)** This component will: (i) design, implement, and evaluate a messaging program on parenting practices in families with

³ GN-2836 is the Country Strategy for Uruguay 2016-2020, this policy is valid until a new country strategy is approved.

⁴ Component 1 will be developed in technical consultation with the Salud.uy initiative of the Electronic Government and Information and Knowledge Society Agency (AGESIC). Salud.uy aims to promote the intensive use of Information and Communication Technologies in the health sector to improve quality and continuity of care. The Bank has been supporting this objective through the Conditional Credit Line for Investment Projects (CCLIP) (UR-L1163).

children from 0 to 4 years old. The messages include information on the benefits of improving parenting practices; suggestions for activities to be carried out at home; and motivation. The messages will be sent via text, in audio or audiovisual format. The component will also: (ii) evaluate the impact of the intervention using a Randomized Control Trial. Families will be randomly divided into two treatment arms and one control arm. The first treatment group will receive messages during a single four-months period. The second treatment group will receive messages during three non-consecutive four-months period in the course of two years. The control group will sporadically receive placebo messages.

- 3.3 **Budget.** The total cost of the TC is US\$460,249 which US\$340,249 is contribution of the Bernard Van Leer Foundation through a Project Specific Grant. US\$120,000 is the local counterpart from Universidad de Montevideo and Fundación Alvarez Caldeyro Barcia (in-kind) as indicated in the table below. The execution and disbursement period will be 36 months.

Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding (in-kind)	Total Funding
Component 1: Boosting development through the leverage of technology and behavioral science during pregnancy and early childhood	\$ 223,237	\$ 80,000	\$ 303,237
Develop and test a pregnancy app	\$ 67,840	0	\$ 67,840
Develop and test a parenting app	\$ 20,940	0	\$ 20,940
Implementation pregnancy and parenting app	\$ 33,295	\$15,000	\$48,295
Evaluate of component 1 using a randomized control trial	\$ 101,161	\$65,000	166,055
Component 2: Promote better parenting practices via text and audio messages in the UCC population	\$ 100,000	\$ 40,000	\$ 140,000
Design a messaging program on parenting practices in families with children from 0 to 3 years old.	\$11,000	0	\$11,000
Implement a messaging program on parenting practices in families with children from 0 to 3 years old.	\$20,000	0	\$20,000
Evaluate the impact of component 2 using a Randomized Control trial	\$69,000	0	\$69,000
IDB PSG fee	\$17,012	0	\$17,012
Total	\$ 340,249	\$ 120,000	\$ 460,249

- 3.4 Bernard Van Leer Foundation expects to commit EUR 281,750 to this project, which is equivalent to US\$ 340,249, based on the exchange rate 1.21 as of January 18, 2021, as available from the Bank's Finance Department (FIN) intranet website. Final resources in US dollars will be dependent on the exchange rate of the date when the resources are received by the Bank from Bernard Van Leer Foundation in Euros and converted into US Dollars. If a significant adverse fluctuation in the exchange rate reduces the amount of US dollars in this budget and such amount cannot be covered by the contingency line, the project activities will be decreased appropriately and the budget will be adjusted accordingly by the project team.

- 3.5 Resources of this project to be received from Bernard Van Leer Foundation will be provided to the Bank through a Project Specific Grant (PSG). A PSG is administered by the Bank according to the "Report on COFABS, Ad-Hocs and CLFGS and a Proposal to Unify Them as Project Specific Grants (PSGs)" (Document SC-114). As contemplated in these procedures, the commitment by Bernard Van Leer Foundation will be established through a separate Administration Agreement. Under such agreement, the resources for this project will be administered by the Bank and the Bank will charge a non-refundable administration fee of 5% of the contribution, which is identified in the budget of this project. The 5% administration fee will be charged upon the Bank's receipt of the contribution, after the contribution has been converted into US dollars.

IV. Executing agency and execution structure

- 4.1 Given the technical-operational knowledge and experience in the topics of the TC, SCL/SPH will execute the TC. The products and activities envisaged will generate knowledge and strengthen the technical capacity of the Bank and its member countries. Furthermore, the TC will build on previous work the Bank has done in Uruguay using behavioral sciences: for instance, to nudge parents to promote preschool attendance (UR-T1194), and to use SMS to improve parenting practices in childcare centers (RG-T3213). On the operational side, this work extends further support to ECD public policies in Uruguay such as improving quality of center-based care (UR-L1110) and improving quality of home visits. (UR-T1137).
- 4.2 **Procurement.** The activities to be executed are included in the Procurement Plan (Annex IV) and will be contracted in accordance with Bank policies as follows: (i) section AM- 650 of the Administrative Manual "Complementary Workforce" for individual consultants; (ii) for consulting firms for services of an intellectual nature, the Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4) and the related Operational Guidelines (OP-1155-4); and (iii) for logistics services and other related services Corporate Procurement Policy (GN-2303-28). The UDR will be in the Headquarters.
- 4.3 Consistent with one of the reasons stated in the GN-2765-4 policy, OP-1155-4 guidelines (point (a) about continuity of services), the IDB recommends directly hiring the local Universidad de Montevideo because they have the expertise and experience implementing and evaluating pilots of similar programs, this TC will build on the evidence created by the Crianza Positiva program developed by the University. Moreover, Universidad de Montevideo also complies with the reason stated in GN-2765-4 because it is exceptionally qualified to implement evaluation activities.
- 4.4 **Monitoring and Evaluation.** The project's development objective, outcome and outputs indicators will be monitored by the IDB according to the Results Matrix of the TC. The project team will be responsible for the preparation and submission to Bernard Van Leer Foundation of the project reporting, in compliance with the stipulations of the Administration Agreement.
- 4.5 **Team.** For components 1 and 2, the team is composed of investigators from the Universidad de Montevideo in collaboration with the IDB team.
- 4.6 If at the end of project execution, the project is closed with a positive uncommitted and unspent balance, the project team will be responsible for informing ORP/GCM to transfer such balance as agreed by the Bernard Van Leer Foundation and the Bank, pursuant to the terms of the PSG Administration Agreement.

V. Major issues

- 5.1 Possible risks may involve technological problems such as lack of memory in the caregiver's cellphone or lack of access to a wi-fi connection (Component 1). The team will pilot the app prior to the evaluation to assess this risk; however, in 2019, 96% of the adult population in Uruguay reported using their phone to access the internet (EUTIC 2019). Another risk relates to potential attrition, in particular among families in Component 2, who are supposed to be followed up for up to 2 years. The research team of this TC will collect information from various contacts of the family, as well as their address, to ensure that the families in the sample are not lost. In addition, because the involved families will be beneficiaries of a public program (UCC) which will be directly involved in the intervention, we expect to obtain follow-up contact information from this source. UCC closely monitors families at risk which makes follow-up easier. There will be a close coordination between the Bank team and local counterparts to mitigate possible risks in the execution of the project.
- 5.2 In order to ensure sustainability once the TC is completed: For component 1, doctors from the public sector who work both at a clinical and research level are being integrated into the work team. Also, the project obtained the support of the main hospital in the country (attending more than 12% of births in the country) and which has stated that the project is in line with its five-year objectives of integrating technology into primary care. Furthermore, this component is part of the portfolio of the Alvarez Caldeyro Barcia Foundation that works within the Pereira Rossell Hospital Center which ensures that the innovations that civil society brings to the public health sector are sustained over time. In the case of component 2, the number of centers that have demanded to participate in prior modalities of the program is increasing. In addition, since 2020 a local NGO, Fe y Alegría, is in charge of the implementation of Positive Parenting modules. This NGO is working on finding additional resources to finance the expansion of the intervention to more families. Also, conversations are being held with UCC and CAIF authorities in order to facilitate and magnify its dissemination and implementation. At the UCC level there is great interest in implementing it among the high-risk families that the program targets.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank policies.

VII. Environmental and Social Strategy

- 7.1 According to the Environmental and Safeguards Compliance Policy (OP-703), Indigenous Peoples (OP-765), and Gender Equality (OP-270), this TC is classified as category "C". The TC will not finance infrastructure or civil works. The proposed interventions are expected to cause minimal to no negative impacts. See filters [SPF](#) and [SSF](#).

Required Annexes:

[Request from the Client - UR-T1257](#)

[Results Matrix - UR-T1257](#)

[Terms of Reference - UR-T1257](#)

[Procurement Plan - UR-T1257](#)