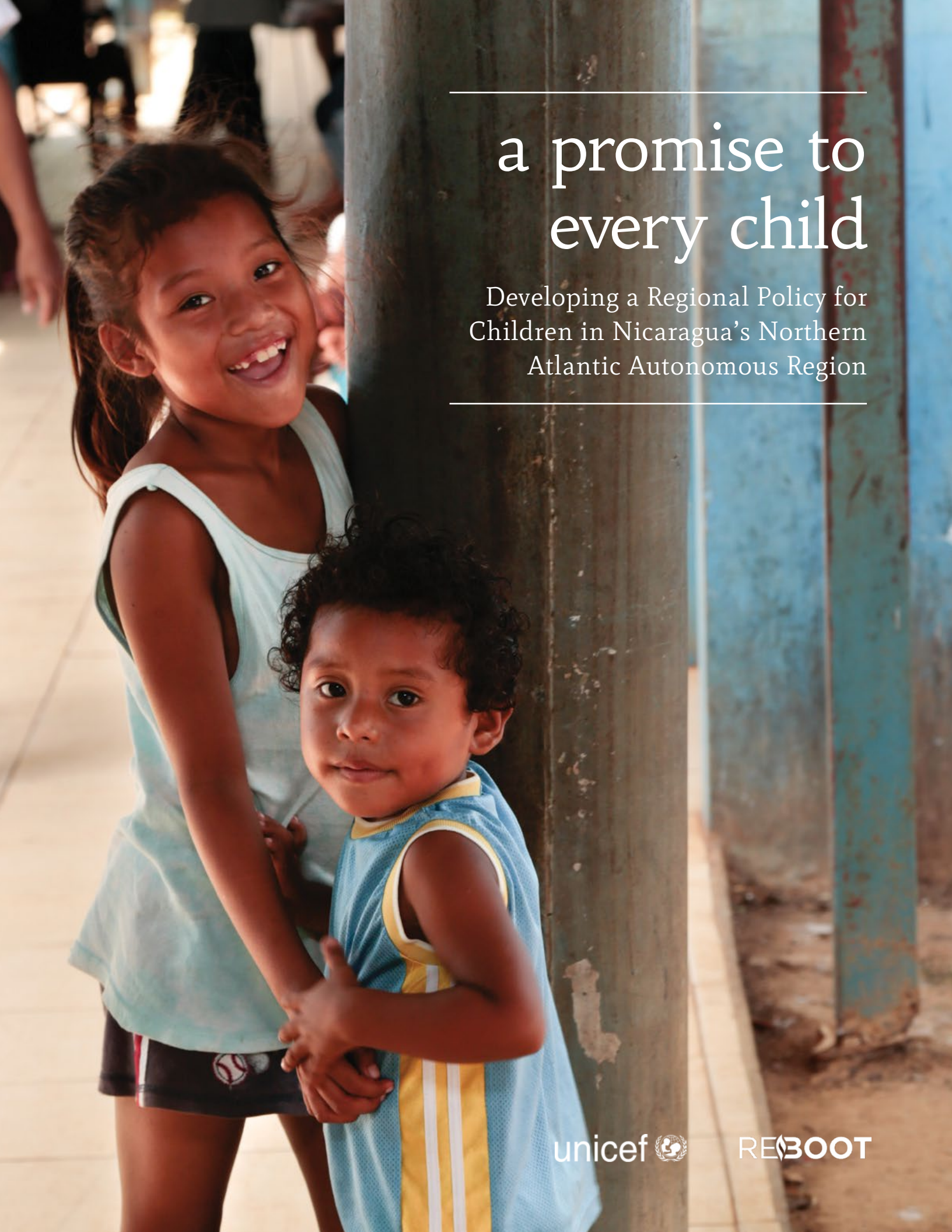


a promise to every child

Developing a Regional Policy for Children in Nicaragua's Northern Atlantic Autonomous Region

unicef

REBOOT

a promise to every child

Developing a Regional Policy for Children in Nicaragua's Northern Atlantic Autonomous Region

unicef
unite for children

REBOOT

unicef
unite for children

REBOOT

http://UNICEF.org.ni *www.reboot.org*

A Promise to Every Child: Developing a Regional Policy for Children in Nicaragua's Northern Atlantic Autonomous Region

Rafael Villa, Policy Lab SAS
Principal Analyst

Kate Petty
Editor

Samantha Hammer
Research & Editorial Lead

Mollie Ruskin & Jennifer Thibault
Creative Direction

Panthea Lee & Zack Brisson
Technical Advisors

Kacia Ng
Designer

Dane Roth
Research Coordinator

Yessi Arifin
Infographic Designer

© United Nations Children's Fund (UNICEF) July 2013

This report was authored by Reboot and results from original work commissioned by UNICEF Nicaragua. For more about Reboot, please visit www.reboot.org.

This document is based on internal field reports and is not edited or fact checked to official UN publication standards. Statements in this report do not imply or constitute official opinions or policy positions of either the United Nations or UNICEF.

Rights and Permissions

Written permission from UNICEF is required to reproduce any part of this publication. For information on rights and permissions please contact:

UNICEF Nicaragua
Edificio Naciones Unidas Nivel 1
Rotonda el Güegüense 400 mts. al sur.
Managua, Nicaragua
Tel: (505) 2268-0687/8
Email: managua@unicef.org
www.unicef.org.ni

Acknowledgements

With gratitude to the Regional Government and Regional Council of RAAN, and UNICEF Nicaragua.

Special thanks to Natalia Adler, UNICEF Nicaragua; Guadalupe Alvarez, Secretariat on Women, Family, and Children, Regional Autonomous Government of RAAN; and Cynthia Miguel, Commission on Women, Family and Children; Regional Autonomous Council of RAAN.

And to the entire team: Alberto, Ada Luisa, Andy, Armando, Bevo, Brenda, Karla, Chester, David, Delaida, Elisa, Elisa, Eusebio, Fernando, Hugo, Indiana, James, Juana, Katherine, Marina, Paivi, Reina, Rinko, Yuri—thank you for your work and dedication!

Finally, our deepest appreciation to everyone in RAAN who shared their lives and stories with such candor and warmth. Thank you for making this work possible.

Photos © Reboot.
Photos may be used for non-commercial use provided that attribution is clearly given. To inquire about licensing photos for commercial use, please contact hello@reboot.org.

The images in this publication are for illustration purposes only, and do not necessarily represent the ideas, individuals, or contexts which they are used to illustrate. The photos of individuals that appear in this publication do not correspond to those being discussed in the portion of the text or the respondent quotation in which their image appears.

contents

2 executive summary

6 the promise: nurturing children through empathetic policy

8 Addressing Complexity in the Social Environment

12 A Policy to Nurture the Whole Child

14 operationalizing empathy: designing a policy that empowers

15 A Process to Activate Understanding

18 advancing potential: six objectives to improve children's lives

26 insights and opportunities: promoting maternal and infant care

29 Meet Lidia: Seeking Guidance on the Path to Motherhood

32 Contextual Constraints on the Health of Mothers and Infants

46 Programmatic Opportunities

54 insights and opportunities: social values, discipline and self-development for children

57 Meet Kaku: Searching for a Place to Grow

60 Fostering Self-Development and Shared Social Values

72 Programmatic Opportunities

82 looking forward

84 annexes

foreword

Since 2011, multiple stakeholders in Nicaragua's Regional Atlantic Autonomous Region (RAAN) have been working to develop a Regional Policy for Children. This will serve as a guiding framework to support the realization of the rights of children and the families and communities who support them through efficient interventions tailored to fit the regional context.

The process has been guided by the principles of participatory design. Community members were deeply engaged in identifying and prioritizing areas of need and provide nuance to the policy framework. Policymakers from the Regional Council and Regional Government built deep empathy for the people they serve by immersing themselves in shared experiences with community members. The process was representative of RAAN's rich diversity. Inputs were gathered from children, adolescents, family members and supporting institutions in the community. All of RAAN's unique cultures were equally respected with indigenous, Afro-descendant, and Mestizo populations all participating actively in this process.

In the name of the Government of Unity and National Reconciliation of Nicaragua, and with the support of UNICEF and the Regional Council and Regional Government of the Northern Atlantic Region, we are designing the Regional Policy for Children for this territory. With this policy, we reconfirm our commitment to the most precious residents of the Northern Caribbean Coast of Nicaragua.

Cynthia Miguel
Secretary of the Commission on Women, Family and Children,
Regional Council of RAAN

executive summary

Designing a Regional Policy for Children

Children growing up in Nicaragua's Northern Atlantic Autonomous Region (RAAN) face numerous constraints that make it difficult to thrive. Regional economic weakness, poor physical infrastructure, lingering effects of conflict and natural disaster, and sociocultural complexity all challenge the services and human relationships supporting children's healthy growth and development in this diverse region.

Many wide-ranging development interventions have sought to address these challenges. Measured improvements in children's health, participation in education, and other key requisites for children's growth over the past decade speak to the impact of these efforts. However, the success of interventions supporting children is often limited by the same constraints that keep the region's children from achieving their full potential. The interwoven factors of the region's history, economy, geography, and politics create a common context that defines the challenges and opportunities available to children and those who seek to support them.

Authorities in RAAN's Regional Government and Council are committed to overcoming these obstacles to improve the lives of the region's children. Recognizing that the complexity of the social environment requires a holistic response, a consortium of regional policymakers, in partnership with UNICEF Nicaragua, are crafting a comprehensive regional policy for children. The policy will provide a framework for guiding programmatic efforts to protect and empower children in RAAN.

Regional leaders and UNICEF Nicaragua believe in exploring and adapting new approaches to policymaking to improve children's lives. They see in this policymaking endeavor an opportunity to engage constituents more deeply in the policy design process, and to increase their understanding of nuanced factors shaping their constituents' lived experiences. Policymakers believe they can channel their newly gained empathy to better tailor interventions to the diversity of constraints, capacities, and interests found among children and their larger context. At the outset of the policymaking process, they sought to identify the tools that would help them achieve this vision.

UNICEF Nicaragua provided external support to these efforts by engaging Reboot, a global social enterprise experienced in bringing empathy to the design of policies, programs and services. Their team worked closely with a multi-sector working group of local policymakers led by the Regional Secretariat on Women, Family and Children and staff from UNICEF Nicaragua. Consultations with communities allowed citizens to communicate their priorities based on an initial baseline of issue areas assessed by a prior survey. Through interactive synthesis techniques, policymakers, UNICEF Nicaragua staff, and Reboot collectively analyzed findings of these consultations and articulated six key objectives to support the development of RAAN's children:

1. Supporting universal access to high-quality maternal and infant health care
2. Building a shared understanding of social values and discipline
3. Promoting protection of identity and children's personhood
4. Creating opportunities to develop intellectual and practical skills
5. Creating safe environments to promote overall health and well-being
6. Progressing toward a childhood free from violence

The first two objectives were chosen for deeper inquiry to understand what would be necessary to achieve the desired outcomes. To accomplish this, the team applied ethnographic research methods to understand the relevant human and contextual factors. Over the course of this immersive policymaking process, they observed, spoke with, and joined in the daily lives of more than 300 residents of RAAN. These included children, mothers, fathers, teachers, school directors, health providers, policymakers, and other public servants. Through this process, policymakers with local expertise gained a nuanced understanding of the varied lived experiences of their constituents, and strengthened their connection to the people they serve. They also built skills in qualitative research that they intend to re-use in the design of future policies and programmatic initiatives.

This report documents the insights developed through this immersive policymaking process. Drawing on the results of the qualitative research and analytical work done in the spring of 2013, it outlines the community-driven rationale for the selection of the six priority development objectives. It also provides insight into the social context of the first two objectives concerning 1) maternal and infant health care, and 2) social values, discipline, and self-development for children. Each set of findings includes actionable programmatic opportunities for policymakers to consider in pursuing both objectives.

Key Findings—Maternal and Infant Health Care

In recent years, RAAN has progressed in improving and expanding the resources and care available to mothers and their babies. Yet ongoing systemic weaknesses in the design and delivery of healthcare services negatively impact the health of women and infants. The investigation found that:

- Resource constraints undermine service quality and diminish trust in critical, formal providers.
  Inadequate financial, material, and human resources open critical gaps in the quality of care delivered. In addition, services are often poorly coordinated or integrated, exacerbating the effects of these weaknesses.

- Poor communication negatively impacts relationships between patients and providers.
  Linguistic and cultural barriers compound the existing rifts between patients and health care providers. Weak communications design also limits the accessibility and use of key health information. These barriers reduce the effectiveness of provider diagnosis and patient adherence to treatment plans. Repeated frustrating experiences discourage women from using formal health care services.

- Mothers rely on trusted informal support networks that provide underutilized benefits.
  Personal networks, most often close female family members, are invaluable sources of support for pregnant women and mothers caring for new babies. These networks are often expected to compensate for gaps in formal services. However, their potential benefits are reduced by a common lack of access to resources or quality information. Furthermore, support based on personal relationships cannot guarantee reliable care for all mothers and infants.

Key Findings—Social Values, Discipline, and Self-Development

Young people in RAAN today lack adult support, positive role models, and formal services to aid their transition to adulthood. This is manifest in increasing anti-social behavior among adolescents. Research into this issue identified key challenges that policy interventions may address:

- Opportunities for self-development are limited.
  Scarce resources and sporadic institutional support for programs promoting children's and youths' agency, creativity, and responsibility (including extracurricular activities, community-based initiatives, or academic programming) restrict avenues for personal growth and social development.
- Attitudes about discipline restrict children's development.
  Relationships between adults and children are often strictly defined by rules and expectations demanding adult-like behavior from children. Such emphasis on a narrow definition of discipline limits children's options to make their own decisions and explore their creativity.
- Families under strain struggle to support children's social and emotional growth.
  Economic, social, and other environmental factors weaken parent-child relationships and leave children lacking nurturing adult figures and positive models of behavior and good values.

There are ample opportunities to address these issues through interventions that promote and provide childhood opportunities for nurturing, learning, creativity and exploration. Programming that connects children with positive, relevant role models; expands and validates activities fostering agency and creativity; and that is adapted to constraints restricting parent-child relationships may help overcome current obstacles to children's healthy social and self-development. Indeed, promising initiatives already exist in Puerto Cabezas, and may provide models for expanded interventions.

Looking Ahead

Beyond the study's analytical findings, this report also makes frequent reference to the broader policy design process that began with this project. This effort is a response to the enthusiasm policymakers have shown towards applying these human-centered methods to their broader development agenda.

This process has also opened a door to a new approach to supporting human progress in RAAN: policymaking driven by empathy, developed through collaboration and creativity. Training and practical experience policymakers gained during this process have provided the capabilities and motivation to design and implement a child policy according to human-centered principles.

At time of writing, policymakers are continuing to translate this approach and the project's findings into a final policy framework. It is hoped that this process can also serve as a model and an inspiration to future policymaking endeavors.

the promise:

nurturing children through empathetic policy

Children growing up in Nicaragua's Northern Atlantic Autonomous Region deserve the same opportunities as children everywhere. While numerous stakeholders are working to make these opportunities possible, significant constraints keep the region's children from reaching their full potential. To overcome these obstacles, regional policymakers, UNICEF Nicaragua, families, and community members will need to collaborate closely in developing policies and programmatic interventions tailored to empower children in RAAN's unique context.

RAAN
Nicaragua

Addressing Complexity in the Social Environment

There is no one experience of childhood in Nicaragua's RAAN. For a child in seaside Prinzapolka, a highlight of daily life might be romping around canoes resting on the town's sandy beaches. In rural northern Wangky Maya, the picture of home might be mother and sisters standing over a smoking wood cook stove in the yard, with a few gaunt cattle grazing nearby. Some children attend schools dressed in crisp blue and white uniforms, while some arrive barefoot. Children may spend their after-school hours helping their families split firewood and carry well water back to houses; others might join friends in the yard around their neighborhood church for a pick-up soccer game or help out with the small bread-baking business run out of the family home.

Diversity of experience and social diversity are two factors that define childhood in the region. RAAN's young people are stewards of a rich and varied cultural heritage that shapes their identities. Across the region, several distinct ethnic, cultural, and linguistic groups live in both semi-separate enclaves and commingled communities. The indigenous Miskito ethnic group represents the largest share of the population, at 45 percent.[1] The Spanish-speaking Mestizo population is the second-largest group, and is growing in number. Afro-descendent populations, often English-speaking, make up the third largest social grouping. Identities overlap beyond clearly-defined categories, creating a complex and dynamic cultural landscape.

Statistics tracking children's health and well-being suggest that the threads uniting children in RAAN are deprivation and vulnerability. Though social conditions in RAAN have improved significantly in the past decades, the latest numbers continue to tell a sobering story.

RAAN is one of the poorest regions in Nicaragua, with unemployment up to 85 percent; for many in the region, basic subsistence is a struggle.[2] The lingering impacts of both conflict and natural disasters continue to be felt in homes, communities, and institutions. Communities struggle to insulate themselves from the growing incursion of the drug trade. The region's forested territory and poor infrastructure isolate communities and make delivery of crucial services like health and education difficult, especially for the 70 percent of the population living in rural communities.[3]

All of these issues create constraints that can make RAAN a uniquely difficult place for children to thrive. The difficulties children face are also unique when compared to the capital, Managua, or elsewhere in

Nicaragua. Poverty affects 18.8 percent of children up to 17 years of age living in and around Managua. In the autonomous regions of the Atlantic Coast, including RAAN, this rate is 34.7 percent.[4] In RAAN, almost one-third of children suffer from chronic malnutrition (31.7 percent), as opposed to 21.7 percent nationally.[5]

However, the story of childhood in RAAN is much richer than the statistics suggest. These contextual factors impact the lives of children in complex and multifaceted ways. Understanding how the stories behind the numbers define the challenges restraining children's growth and development can illuminate opportunities to help children succeed.

A Fresh Approach to Championing Children's Rights

Policymakers in RAAN and UNICEF Nicaragua are currently seeking to channel a nuanced understanding of the relationship between the regional context and children's lived experiences into an intentional and tailored policy response to protect and empower children.

A major step supporting this effort was taken in 2011 when the Government of Nicaragua approved the National Policy for Early Childhood to support the healthy growth and development of the country's children. That policy represents an important commitment to the rights of children at the highest levels, and is already providing critical support to children in RAAN through an array of programs.

Policymakers in RAAN and UNICEF Nicaragua are committed to building on that foundation with a customized, regional policy that addresses the diverse aspirations and needs of children in RAAN. Recognizing that the complexity of the social environment requires a holistic response, a multi-sector working group of regional policymakers, led by the Secretariat on Women, Family and Children, in partnership with UNICEF Nicaragua, is taking a new approach to policy design to create a framework to guide programmatic efforts tailored to succeed in RAAN's unique context.

This report presents the outcomes of the first stages of their policymaking collaboration. It describes key development objectives for the regional policy to address, findings of an applied ethnographic investigation into the social context of two of those objectives, and actionable opportunities to work toward achieving them through policy implementation.

The National Policy For Early Childhood

Enacted in 2011, Nicaragua's National Policy for Early Childhood encompasses a set of programs and actions supporting the health, nutrition, early education, and socialization of children from gestation through the first six years of life.[6] Spanning the national Ministries of Health, Education, and Family, Adolescents and Children, it aims to:

- Promote access to quality early childhood education.
- Promote the health of expectant mothers, infants, and young children.
- Promote early intellectual stimulation and socialization.
- Put in place centers for early child development as spaces where young children and families can receive nutrition support, basic health services, and information about providing for children's health and well-being.
- Ensure the right to a name and identity for all children.
- Reduce childhood malnutrition, focusing special attention in rural areas, where this problem is most severe.
- Work to prevent all forms of violence against children, providing support to victims and punishing aggressors.
- Realize the right to adequate and dignified housing.
- Provide for the specific needs and rights of children who are forced to work, whose guardians struggle with addictions, who are homeless or without parents, who are disabled, or who are living with HIV/AIDS.

A Policy to Nurture the Whole Child

RAAN's policymakers are committed to supporting the healthy growth and development of the region's children. Their efforts to develop a regional children's policy aim to provide a constructive framework for programmatically supporting the healthy growth and development of RAAN's children. In support of these goals, policymakers established three key principles to guide the design of the regional policy.

1. Provide a conceptual and programmatic framework addressing the experienced needs, aspirations, and desires of the region's children and families, ensuring that every child in RAAN has equal access to the opportunities, resources, and support necessary to develop and fulfill his or her human potential.

2. Promote the shared responsibility of raising children by engaging actors and institutions from all areas of society, thus defining and opening spaces, activities, and attitudes supporting children's healthy development.

3. Connect children with their cultural heritage by developing and promoting resources, services, and institutions that respond to, respect, and foster the values, cultural traditions, and layered identities of the region's communities.

The nature of these principles suggested the need to adopt new tools and inputs to shape both the policymaking process and its final outcomes. As such, RAAN's policymakers committed to an approach based on co-creation with the communities the regional policy is meant to serve. The target is a regional policy that respects children and those that support them as individuals with valid goals, fears, aspirations, and motivations.

operationalizing empathy:

designing a policy that empowers

RAAN's policymakers recognize that human-centered policies should be designed through empathetic methods. In shaping the regional policy, they worked to develop a detailed understanding of the region's children and the contexts in which they grow, learn, and play. These efforts have built a common view of children's experiences and strengthened the connections between policymakers and their constituents.

A Process to Activate Understanding

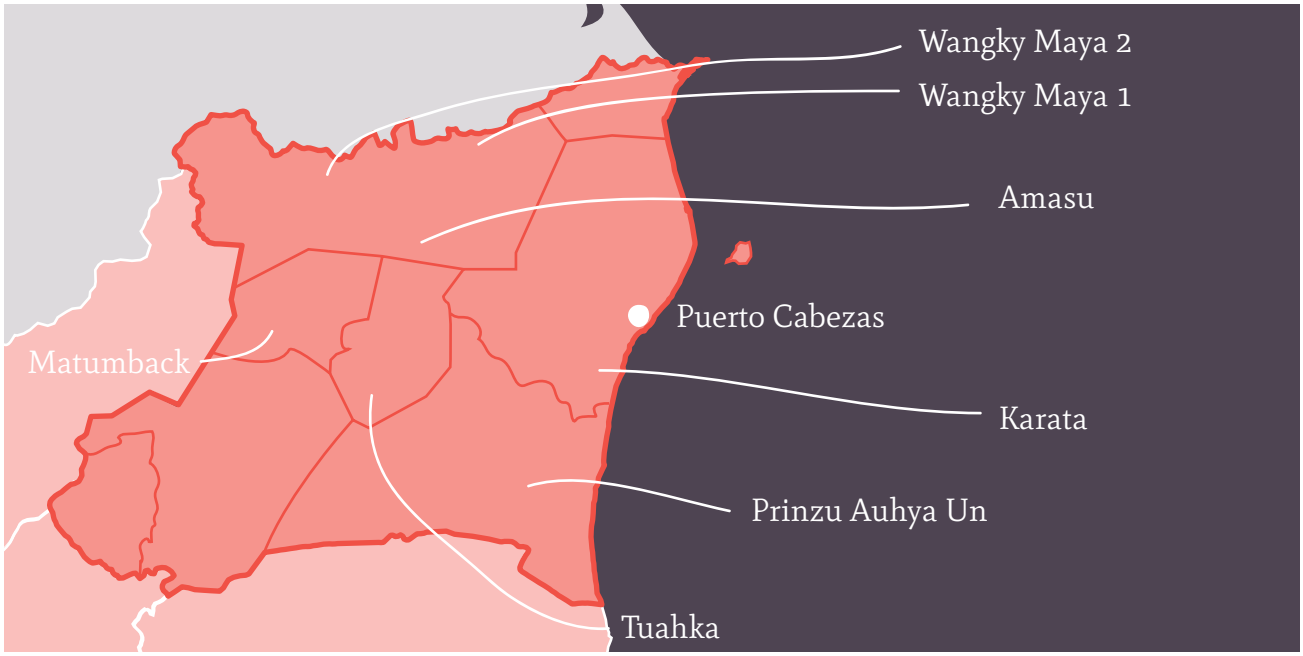
To guide the empathetic development of the regional policy, RAAN's policymakers embraced methods from the field of human-centered design. To provide external support in using these methods, in early 2013 UNICEF Nicaragua engaged Reboot, a global social enterprise with expertise in applying human-centered design to social development. Reboot conducted immersive design research into the policy context to add to the existing understanding policymakers had already developed. They also worked with policymakers to transfer skills and capacity to enable their use of human-centered approaches when designing programmatic interventions to be supported by the regional policy.

Strength of the Design Approach

Human-centered design combines rigorous inquiry and creative analysis to develop interventions suited to address complex challenges. Drawing on the tools of ethnography, journalism, and systems thinking, it produces outputs drawn from an understanding of the cultures, economics, and environments that shape human experience. The process is iterative, with outputs tested and refined based on feedback from the people they will impact. This approach results in final interventions that are tailored to fit the capacities, constraints, and interests of the people they are meant to serve.

Research Sites Throughout RAAN

Community consultations took place in seven territories of RAAN, while in-depth research into development objectives took place in the regional capital, Puerto Cabezas.



An Iterative Path to a Policy for Children

Over the course of eight months, a multi-sector working group composed of members of the Regional Council and Government, under the leadership of the Secretariat on Women, Family and Children, and supported by UNICEF Nicaragua and Reboot, conducted an iterative inquiry to identify key challenges and opportunities that the regional policy for children may seek to address.

Guided by human-centered principles, they engaged a wide range of actors central to children's rights. The following steps outline the initial stages in designing the regional policy for children:

1 identifying challenges

Policymakers first sought to identify key needs of children and their communities. Policymakers administered a quantitative survey using a Lots Quality Assurance Sampling method to assess conditions relating to children's development in indigenous communities throughout seven territories of RAAN. The survey reached 133 respondents and included 23 indicators related to access and coverage of services related to health, nutrition, education, protection, and water and sanitation.

2 building empathy and understanding priorities

Policymakers, accompanied by regional UNICEF staff, returned to the communities to understand the stories behind the survey results, reaching almost 350 residents over two weeks. Using training and tools developed by Reboot, they consulted residents about their needs and priorities through individual interviews, observation, and community discussions. Community children participated by contributing photos of their favorite and least-liked parts of their communities, showing the researchers their environments through their eyes.

3 making connections and finding entry points

Using interactive synthesis techniques, policymakers, UNICEF Nicaragua staff, and Reboot collectively analyzed findings and identified six key objectives for the policy to address. Two of these objectives—concerning 1) maternal and infant health, and 2) supporting self-development and social values in children—were chosen for further investigation.

4 peeling the onion

Facilitated by Reboot and aided by local researchers, the team investigated the two chosen development objectives in Puerto Cabezas, the regional capital, over the course of three weeks. Ethnographic interviewing and participant observation was conducted in places where people cope with factors related to the development objectives, including schools, homes, and health centers. The policy team also ran service trials, participating directly in objective-related activities to understand people's lived experiences from multiple angles.

5 reimagining the future

Through a variety of design exercises, the team synthesized findings and developed a set of actionable opportunities for the regional policy to consider during its subsequent implementation.

6 looking forward

Further research, testing, and final policy elaboration still lie ahead. Policymakers and the UNICEF team will continue the process of policy creation, building on empathy and insights gained during the first investigation to build a final policy framework and a corresponding set of programmatic interventions. Through the knowledge and tools gained in this initial hands-on experience with human-centered design, the resulting regional policy has the capacity to truly reflect and respond to the challenges and aspirations of residents of RAAN.

advancing potential:

six objectives to improve children's lives

At the outset, survey data and community consultations helped policymakers and UNICEF staff in surfacing a diversity of concerns and aspirations that people throughout the region have for their children. Distilling these findings into shared needs and priorities, the policy creation team developed a set of medium-term development objectives to inform the structure and implementation of the final policy.

Steps 1 and 2 of the policy design process focused on understanding communities through identification and prioritizations of their needs. The initial needs assessment survey was used to develop a broad understanding of issues impacting the well-being of RAAN's children. This 'landscape' view was combined with pre-existing research to guide the focus of participatory consultations with communities. This engagement between policymakers and their constituents focused on three key themes that had emerged as particularly relevant to supporting children's growth and development: 1) children's healthy growth; 2) children's identity and personhood; and 3) children's intellectual development.

Consultations served to evaluate the degree to which community members prioritize different issues surrounding these themes. They also identified salient pain points felt by individuals, which in turn illuminated constraints in the enabling environment. Finally, open questions were documented for future study as time and resources might allow. During this process, themes were left intentionally broad, to avoid biasing findings in favor of pre-identified challenges.

Together with Reboot, policymakers and UNICEF combined the consultations' insights on RAAN residents' lived experiences with existing data on conditions influencing children's well-being. The team clarified this constellation of needs, priorities, and contextual factors into key development challenges, then reframed these challenges as aspirations. The result was the following six medium-term development objectives for the regional policy to address.

Development Objectives:

The first two of these objectives were chosen as priorities for further study, with external support provided by Reboot.

1 supporting universal access to high-quality maternal and infant health care

Despite significant efforts and real improvements in maternal and infant health services in recent years, quality care for expectant mothers and infants in RAAN is far from guaranteed. Particularly in rural areas of the region, mothers have limited access to modern health care. Consultation respondents reported that free public clinics are understaffed, sporadically closed, and often lack medication. Faced with these limitations, parents turn to traditional medicines, which serve as an important link to culture and identity but can not substitute for all the benefits of modern care.

2 building a shared understanding of social values and discipline

Parents throughout RAAN perceive a disturbing loosening in morals and behavior in children today, and fear that laws limiting corporal punishment have stripped the traditional guardians of children's growth (parents and teachers) of their ability to ensure children's character development. The consultations revealed a need to understand and address the causes of this perceived bad behavior, and support positive relationships between young people and adults.

3 promoting protection of identity and children's personhood

Parents consulted mentioned difficulties inscribing children in the national registration system, as well as preserving an active link to cultural languages, identities, and practices, as top priorities related to children's identity and personhood.

4 creating opportunities to develop intellectual and practical skills

Many parents believe that the education their children are receiving is not preparing them for successful adulthood. They fear their children lack skills necessary to become responsible citizens and achieve economic prosperity. To overcome these worries, improved school infrastructure and educational resources, teacher performance, and implementation of bilingual education were top priorities for parents.

However, for many children in RAAN, especially those belonging to families that earn a subsistence living through agriculture or a similar trade, education may be seen as a poor use of time and resources rather than a path to a better future.

5 creating safe environments to promote overall health and well-being

The region lags behind the rest of the country in providing safe environments for children's growth. Poor infrastructure, livelihoods, and knowledge of practices for good sanitation and hygiene all play a role.

Infrastructure for good sanitation is limited, particularly in rural areas. Families supporting themselves through subsistence farming, agriculture, and animal husbandry may keep animals in and around their living areas, placing their children at higher risk for infection and disease.

6 progressing toward a childhood free from violence

Given that most of the data from the community consultations was gathered during group discussions, the research team did not probe deeply into the sensitive issue of intrafamilial violence. Respondents' comments in general supported previous research finding that, despite increasing legal protection for children, violence directed toward children remains a significant problem in the region.

Exploring the Objectives in Context

Through an immersive design research investigation drawing on a selection of applied ethnographic methods, researchers engaged community members in order to understand the relationship between residents' lived experiences and contextual factors related to the two focus objectives.

This investigation, as well as the analysis that follows, was shaped by a holistic set of inputs, including secondary research, ethnographic inquiry among RAAN communities, analytical synthesis exercises and extensive feedback from policymakers and UNICEF Nicaragua.

This report documents the salient insights and programmatic opportunities that were gleaned from this effort.

Design Research Respondents

In-depth design research into the two chosen development objectives formed the core of this initial policymaking process. Over the course of three weeks of investigation centered in the regional capital of Puerto Cabezas, researchers engaged with a total of 64 respondents reflecting a broad range of socioeconomic, ethnic and cultural perspectives on the experience of childrearing and childhood in RAAN. A more detailed discussion of characteristics of the respondent sample and implications for the findings is included in the methodology annex.

respondent category

2	fathers
6	mothers with partners
17	single mothers
7	doctors and nurses
1	midwife
3	modern health administrators
5	school administrators
11	students
3	teachers
6	government officials
3	other

64
respondents

cultural/ethnic affiliation

15	creole
5	mestizo
21	miskito
23	other/declined to state

Puerto Cabezas, Nicaragua

age

15	<18
6	18–30
19	31–40
20	41+
4	declined to state

gender

47	female
17	male

An Integrated Inquiry

The supporting evidence for this original research was generated primarily during steps four and five of the policy design process as outlined in the section above. The process of producing these findings, led by the Reboot team, began with extensive desktop research. This included in-depth literature review, expert consultation, and analysis of data sets provided by RAAN policymakers and UNICEF Nicaragua.

This secondary data was then significantly extended through community consultations—two weeks of immersive inquiry using ethnographic methods conducted within relevant communities in RAAN. This secondary data directly informed the parameters of the primary data collection that followed.

At the conclusion of data collection, a month of rapid analytical synthesis brought primary and secondary data together with supporting inputs provided by RAAN policymakers and UNICEF Nicaragua. The final output reflects both the analytical rigor and lateral creativity that are intrinsic to the methods of human-centered design.

However, this report is also shaped by the challenges the project team faced while undertaking these steps. The most influential constraints on the findings were the amount of time available for primary data collection and the difficulty of traveling throughout the region. These factors limited the demographic diversity of the respondent sample and defined the depth of the findings. Given the scope of Reboot's involvement in the policy design process, primary data collection was conducted in Puerto Cabezas. The outcomes therefore reflect that context, and provide an entry point for extending investigation to the rest of the region. The analytical process was structured to mitigate these biases wherever possible, and where relevant, limitations have been noted in this reporting. The report also points out where the findings and observations are known to either match or contrast with conditions in other parts of the region. For a more detailed description of research constraints and compensatory adjustments, please see the methodology annex beginning on page 84.

Interpreting Outputs Through a Human-Centered Lens

During this investigation, researchers and policymakers immersed themselves in human stories to understand the aspirations, pain points, and constraints relating to the objectives as residents of RAAN experience them. In the same spirit of empathy, throughout the report, actual quotes from respondents will be used to illustrate recurring themes and experiences surfaced through interviews. In addition, the following chapters explore the research findings and opportunities for policy interventions through the lens of an archetype—a persona embodying a particular set of common aspirations, motivations, and constraints voiced to the team by residents of RAAN. Archetypes allow for anonymous demonstration of specific data and offer a simple means of articulating a representative lived experience. Archetypes appearing in this report include a young mother; a pre-teen boy; a gynecologist; and a school director. The stories of these archetypes will serve to illustrate some of the challenges impacting children in RAAN, as well as opportunities that the policy could unlock.

insights and opportunities:

promoting maternal and infant care

Weaknesses in the design and delivery of formal health services undermine the health and well-being of RAAN's mothers and infants in multiple ways. Mothers often rely on family, friends, and other community members to compensate for these service gaps. Interventions that incorporate human factors in formal health services and build on the existing support provided by informal networks can improve the quality of maternal and infant care and encourage its use.

From conception through early infancy, the health and well-being of a baby hinges on the ability of her mother to access critical care and support. Over the past several years, RAAN has progressed in improving and expanding the resources and care available to mothers and their babies.

Despite this progress, mothers in the region still face difficulties in supporting their own health and that of their babies. Both infant mortality and maternal mortality in RAAN have dropped in recent years, but rates in RAAN are still significantly higher than those in the rest of the country. In RAAN in 2011, for example, there were 187.5 maternal deaths per 100,000 live births; that same year, the maternal mortality rate in Nicaragua overall was 62.7 per 100,000 births.[7] Nationally, mortality among children under one year of age was at a rate of 29 per 1,000 live births in 2006; in RAAN, the rate was 54.[8]

This high rate is largely a result of the limited availability of high-quality health care services. Weaknesses in the formal services available to pregnant women and infants deeply undermine the health of both. Further, women face frustrating experiences when accessing these services, which undercuts trust between women and health providers and often discourages women from seeking important care. This leads to disjointed treatment and missed opportunities.

Pregnancy and childbirth are naturally times of uncertainty and anxiety for mothers. Their weak relationships with formal caregivers produce additional destabilization during these important periods. Faced with inadequate services, women in RAAN turn to informal networks of family members and friends. These trusted relationships are often willing to provide support, but they lack the resources and information to address critical health needs. Women who lack the support of a partner or strong family network therefore face an especially acute challenge.

The regional policy hopes to address these challenges by increasing the quality and accessibility of health care for mothers during their pregnancy and for infants during the first months of their lives.

This section discusses the contextual factors that inform how the policy can achieve these objectives, and suggests entry points for programmatic interventions once the policy is implemented. These findings and opportunities are illustrated through the archetype of one young woman, Lidia, who faces the daunting challenge of single motherhood in RAAN.

An Empathetic Approach

This investigation was designed to understand the experience of birth and motherhood in RAAN in order to inform efforts to improve maternal and infant health. Researchers explored the issue through structured interviews, observations in homes, clinics, and other service points, and trials of available services.

When possible, researchers interviewed and observed respondents in the specific places where they often run into obstacles to accessing quality care. The team also shadowed a young single mother in her home. This first-hand observation allowed the team to see as well as hear about challenges, and probe more deeply into issues not raised during interviews. Further service trials allowed the team to build a more personal understanding of mothers' experiences. These trials included spending a night at a casa materna (a "maternal house" offering short-term residence for pregnant women), buying medicine for a sick child, and providing child care.

To understand the ecosystem of support around mothers and infants, additional interviews were conducted with clinic directors, doctors, nurses, grandmothers, fathers, and a midwife. This ecosystem—and its challenges—is demonstrated in the relationship map showing Lidia's sources of support.

Meet Lidia: Seeking Guidance on the Path to Motherhood

Lidia
19 years old

Home:
Puerto Cabezas

Lives with:
mother, two sisters, 2-year-old nephew

Pursuits:
recent high school graduate, enrolling in a teaching certification course

Challenge:
she is five months pregnant with her first child

Lidia's story

Lidia was upset when she found out she was pregnant; she had been excited about pursuing a career as a teacher, and having a baby was not part of her plan. She is also nervous about becoming a mother. She wonders if it will hurt to breastfeed, and is not sure how she will afford diapers and baby clothes. Her mother reassures her that the family will find a way to help, so that she can continue with her classes, and that she will learn to take care of her baby with time.

But like many young women in her hometown of Puerto Cabezas, Lidia's journey into motherhood is defined by significant constraints. Learning how to raise a healthy child, caring for herself during pregnancy, getting medical care for the birth, and finding trustworthy and reliable information are all challenges Lidia must meet without a deep and reliable support system.

Lidia's Support Network

family
Strongest support

Sandra, Lidia's mother

42, a native Miskito speaker who came to Puerto Cabezas from the Las Minas territory. She earns a living cleaning government offices.

modern health provider

local health post

A small public clinic offering free prenatal checkups.

Lidia

extended family

Deborah & Laura, cousins

21 and 27, both unmarried, with 5 children between the two of them. They have a small used clothing shop.

traditional health provider

Alma, a midwife

72, has delivered generations of the same families in Puerto Cabezas.

church
Estranged

Central Moravian Church of Puerto Cabezas

The majority of the city's population practices the Moravian faith. The church is a key social hub as well as a spiritual center.

partner
Estranged

Roberto, father of Lidia's child

28, unmarried, unemployed lobster fisherman.

strength of support

stronger

weaker

		support provided	obstacles faced
Sandra		Having raised five children, she knows how to care for babies, and has lots of advice to help Lidia prepare for her own. Once Lidia gives birth, she will care for the baby on Saturdays so that Lidia can attend classes.	She is excited about her grandchild, but is concerned about the additional strain on the family finances. She cannot help Lidia pay for visits to the private clinic. Her work schedule does not let her accompany Lidia to doctor appointments.
Deborah & Laura		Deborah and Laura visit Lidia often during her pregnancy. They share advice drawn from their own experiences of pregnancy. They tell Lidia how to get appointments at the best public health post by lying about where she lives.	While they are happy to offer advice, sometimes it is misguided, like when they tell Lidia that breastfeeding will give her stretch marks. They offer to help babysit when they have time, but they are too busy to be reliable.
local health post		Lidia receives efficient prenatal checkups at this basic but clean health post. For pregnant women, waiting times are perceived to be reasonable, usually not more than 20 or 30 minutes.	Lidia is able to see a doctor sometimes, but when there are many patients a nurse attends her. Both the doctor and nurse check her quickly and must move on before Lidia can ask them questions.
Alma		Lidia wasn't planning to use a midwife, but her mother urged her to see Alma. Lidia asks her questions about pregnancy and caring for her and her baby's health. A longstanding leader in the community, Alma helps to assuage Lidia's feelings of exclusion and shame.	The midwife does not have a working relationship with the local clinic or doctors and so is unable to give Lidia advice regarding their services or integrate her care with theirs.
church		Lidia draws great strength from her faith and has been a dedicated churchgoer since she was a little girl.	When it became obvious she was pregnant, Lidia noticed other church members whispering when she went by, and even heard some talking about her shameful "fall from grace." Embarrassed, she has stopped going to church.
Roberto		During the second month of Lidia's pregnancy, Roberto called occasionally, and brought her soup a few times.	In the last two months, he has stopped answering Lidia's calls. Lidia's mother tells her that it is time to move on—there is no use trying to get blood from a stone.

Contextual Constraints on the Health of Mothers and Infants

Resource Gaps Undermine Care

A lack of critical resources frequently undermines the quality and dignity of maternal care, the experience of delivery, and neonatal care. Inadequate material resources leave many clinics and hospitals unable to provide even a minimum standard of care. Infant's lives are commonly lost due to a shortage of basic medical supplies, such as incubators and respirators.

In addition to undermining care, the lack of resources undermines institutional goals of humanizing the experience of giving birth. For example, the research team found centers that did not have enough beds, meaning that women were left to share beds even before or after giving birth.

Information is a Frequently Missing Resource

There are also gaps in the information available and given to women. Providers cite the number of caseloads as one factor in their inability to provide adequate information about prenatal and infant care; judgments about the importance of this information, as well as cultural disconnects, also contribute to this failing. (These disconnects are explored more deeply in the next section.)

The ad-hoc delivery of important information illustrates the problems of non-integrated care. There are no systems in place to guarantee that a woman leaves the hospital having heard important information about preventing infection in babies, for example, or following up with neonatal care. While hospital staff are obligated to convey these messages, the system for oversight is inadequate, and many respondents reported not receiving the required information.

Though some women did report satisfaction with their personal communication with health providers, most felt confused, underinformed, and/or neglected. The poor channels of communication between women and providers leaves women unprepared to care for the health of themselves and their infants. It also increases women's experience of uncertainty and frustration over health services.

› Proactive information is rarely given

Interviews with mothers and health providers indicated that a high number of women were unaware of critical danger signs during pregnancy, suggesting that women are not receiving enough substantive information about preventative care from health providers during prenatal checkups. Health providers also acknowledged gaps in their consistent delivery of necessary information, citing both heavy caseloads and doubts about the relative importance of knowledge sharing.

As a result, women are often confused about their conditions, leaving them unable to take actions to improve their health or to self-report on symptoms that would benefit their care. During research observations, some women interviewed in the maternity ward at the Puerto Cabezas hospital knew they were being treated for a pregnancy complication, but did not know what it was. One young woman had been transferred from the casa materna without being told why. More than a day passed before she received an update from her doctor.

"Ten minutes is a long time here for a doctor to talk about prevention. There is very little time dedicated to moms to explain prevention."

Gynecologist

› Information is poorly timed

Even when important information is delivered, it is often given at times that make it ineffective. The most concentrated round of important information about caring for themselves and their babies comes during mothers' stay at the hospital, prior to and after giving birth. However, few women are in a position to absorb lessons about breastfeeding, nutrition, and signs of infant health during this stressful period. Additionally, they receive no tangible information (such as printed material) to help ensure that the training and instructions they receive from the doctors and nurses at the hospitals stick.

"The doctor told me why breastfeeding was important, but I forgot."

Single mother, 17

› Information is not actionable

Information about ensuring good health is often also divorced from the reality of women's lives. Women are told to breastfeed exclusively for the first six months after a baby's birth, for example, but those who need to work, study, or provide care for other children don't hear about options that would make breastfeeding feasible—of which, unfortunately, there are few. In addition, a social assistance program that subsidizes infant formula for working women presents a contradictory message about the importance of exclusive breastfeeding. Doctors report that women who work, as well as those of higher economic status, are less likely to breastfeed exclusively. In response, doctors prefer not to mention formula as an option at all:

"You know they won't buy milk, so it's better not to tell them which milk to buy if they don't breastfeed. Don't give them the option."

Pediatrician

Providers and Patients are Disconnected

Several gaps divide formal caregivers from those they treat. Class, culture, and language are all basic human factors that can limit the human connection underpinning these relationships. High caseloads and differing expectations of the caregiving experience also contribute to breakdowns in communications and trust.

With their attention stretched across an untenable number of patients, overburdened health providers find that it is difficult to create strong connections with individuals under their care. However, the challenge is not only a function of caseloads. In this culturally and ethnically diverse region, linguistic and cultural differences create rifts between doctors and health administrators (many of whom are Mestizo and come from other parts of the country to perform short tours in RAAN) and patients (many of whom are members of indigenous or ethnic communities and may not be comfortable communicating in Spanish). These different perspectives often pose challenges when mothers and health care providers clash over the integration of traditional practices and beliefs with modern medical practice. This results in treatment regimens being ignored or for caregivers to lack an awareness of important symptoms. Nurses, non-medical staff, and patient family members all help to intercede, but integrating all involved remains a challenge.

From the Policymaker's Notebook

A regional policymaker who observed interactions between mothers and health providers in the maternity ward of the Puerto Cabezas hospital found that efforts to provide information and guidance to new mothers are complicated by disconnects around language, literacy, and understanding.

"In the hospital there is an effort to instruct mothers in how to breastfeed their babies. Those who can read [the explanatory posters] can read them if they like, but many [of the women] do not read. Furthermore, the posters are written in Spanish, and so many do not understand the messages.

The nurses do not instruct the mothers about the use of the bottle. The doctors only say, 'I do not want to see bottles here in the [postnatal] room.' When the mothers hear him say that, they hide their bottles so the doctor does not take them."

Delaida Wilson Kingsman
of the Regional Government of RAAN, describing her observations at the Puerto Cabezas hospital

Faltering Communication

In addition to the challenges related to information-sharing described above, meaningful communication between women and health providers is often lacking.

› Language remains a challenge

Although providing access to services in the primary language of users has long been a key focus of policymakers and programs in RAAN, the language barrier continues to be a problem for women whose native language is not Spanish. In Puerto Cabezas, researchers found Miskitu-speaking women who were unaware of their conditions and who were not able to communicate effectively with their doctors. Few doctors speak Miskitu—especially true of those who are transferred to RAAN from other parts of the country. These caregivers have to rely on their generally over-burdened nurses for translation. Though it is clear providers are trying to make translation available, with the volume of caseloads they are managing it seems that the current arrangement rarely works smoothly.

› Women's silence inhibits care

Despite the confusion, women are unlikely to speak up to voice questions or complaints. Mothers often wait patiently until anxiety becomes panic, and rarely confront providers who they feel have given them inadequate care. Respondents provided stories of young pregnant women who did not mention to mothers or doctors even emergency information; one stayed quiet about the fact that her water had broken, and another did not mention she had been vomiting blood.

Though language difficulties may partially account for indigenous women not conveying information or asking questions, there are indications that cultural differences may also play a role in women's willingness to communicate assertively, with women of some cultural groups more comfortable in asserting their needs than others.

Cultural Distance

Differing cultural traditions introduce difficulty into the delivery of care.

› Care must speak to identity

While modern medical providers are making progress in integrating traditional practices in with modern care, they are still struggling to speak to mothers' cultural identities and personal beliefs.

Midwives and traditional healers play an important role in maternal and infant care for mothers in RAAN, particularly in more rural parts of the region. For routine medical care, some women seek to work around the deficiencies in modern medical services by supplementing it with traditional care. This is especially true for women living in rural areas. Traditional remedies for maternal and infant illness offer practical health benefits and also provide a reassuring connection to culture and family. Faith in these traditional practices can often outweigh a mother's trust in formal services. According to one doctor, when his opinion contradicts that of a patient's curandero, or traditional healer, the patient will often leave the hospital and abandon treatment.

› Some progress in blending tradition with modern care

Medical practice that blends cultural tradition with the best in modern care has been a dream for policymakers, health providers, and residents of RAAN for years, and was the impetus behind the Regional Model for Intercultural Health (MASIRAAN) adopted in 1997. Due to this policy, it is now possible for midwives not directly affiliated with institutions to have a more substantive role in prenatal care and delivery, including accompanying her patient to check ups and being present during the birth. But in practice, both doctors and midwives say that there is still friction over whose authority rules, with midwives often taking on the role of a supportive friend rather than a health provider.

Programs under the MASIRAAN policy have been concentrated in the rural areas where indigenous communities may be isolated from modern health services. In Puerto Cabezas, it seems there has been less progress. Though most doctors recognize the importance of traditional medicine to many of their patients, they are hesitant about the health benefits:

"Most of us have a strong scientific background, we don't have this spiritual background."

Doctor

Systemic Inconsistencies Undermine Health

› Providers remain unaware of traditional practices

Many traditional practices remain a mystery to modern health providers, with potentially serious consequences for mothers and babies. Because traditional practitioners remain outside the modern system, there are few (formal) controls on their practice. While many women enjoy the benefits of traditional approaches to maternal health, damaging practices also remain widespread, such as the usage of stimulant herbs to help speed labor contractions.

Such herbs are linked to hemorrhage during delivery—one of the major causes of maternal mortality. But doctors we spoke with did not know specific details about these herbs. There is little to no communication between doctors and traditional practitioners; doctors must convince patients themselves to disclose information about what they are taking.

Hospitals have tried to come to a compromise on this situation with a policy that allows women to use topical medications and mineral baths, but not to drink herbs, while under the doctor's care. In practice, this is nearly impossible to regulate.

› Haphazard service delivery

A complex and inconsistent system of delivery leaves women feeling lost while limiting the ability of caregivers to maximize their training and knowledge. Most women reported not being able to see the same provider (either a doctor or nurse) for each prenatal visit, increasing the likelihood that important changes in a woman's or baby's condition may go unnoticed. Additionally, doctors reported that weak coordination between the clinics and the hospital in the lead- and follow-up to birth makes tracking patients' condition and needs difficult.

The lack of integrated care is especially acute during delivery. Women recalled the experience of being shuttled from nurse to doctor to new nurse over the course of several hours, with long waits in between, each time hearing a different explanation of their condition and a different plan of care. One woman was made to wait to deliver until it became clear her baby was experiencing serious trauma, and then had to be delivered by Caesarian section.

› Unreliability diminishes trust

Systemic weaknesses at the facility level have an impact on immediate health outcomes and are detrimental to women and children's health over the long term. Negative service experiences have subsequent impact on health, as mothers become disincentivized to seek out care. This builds a culture of reduced participation by mothers in accessing necessary health services. Human factors, such as the dread of customary lengthy wait times, encourage women to delay the use of health services until it is absolutely necessary.

Unreliable and inadequate care may keep women from using available health services altogether. Previous studies have found that women in RAAN's communities preferred to give birth in hospitals, but were continuing to give birth in homes because of perceptions of low-quality hospital conditions and services.[9]

› Lack of trust extends to lack of care for children

This sense of futility around seeking timely care applies to accessing routine health care for infants and young children as well. One clinic administrator attributed this to a lack of interest in preventative care, saying, "People here have the idea that if the kid is healthy, [there is] no need to go to the doctor."

Mothers described the arduous path to getting care for sick babies, making it clear that going a step further to access preventative care would be too difficult to manage. One young mother explained the difference between seeking prenatal and infant care: "When I was pregnant they treated me well. Now it's different. Now I have to wait a long time. They don't prioritize real emergencies." Other women reported that they expect to spend the entire morning at the clinic to get attention for a sick baby.

A Health Provider's Perspective: Integration is Key

Dr. Wilson
Male gynecologist, late 30s

Dr. Wilson has been practicing medicine in RAAN for just over a decade, and works in both the hospital and public clinic in Puerto Cabezas.

He sees progress in the quality of health services, but the lack of resources continues to make his practice difficult. As an example, he explains how hospital staff must scramble to cope when the number of births outstrips their small supply of infant incubators. Sometimes, fully preventable infant deaths are the sad result.

He and fellow doctors aspire to change at the systemic level, but are discouraged by failed past attempts to organize themselves and present to policymakers a compelling vision of change. They feel disconnected from decision-makers, and have little communication with representatives from either the national or regional ministries of health.

His skepticisms also speak to larger national perceptions of regional identity, as he has limited faith in clinic administrators who come from the Pacific side of the country. In his view, by the time they understand RAAN's health system and people, they are transferred to another facility—usually within four years.

Dr. Wilson's story suggests that the disconnections between patients and providers are mirrored by disconnections at systemic levels.

The Role of Informal Social Networks

> "[My mom told me] that you suffer to raise a kid without a father. Because my mom is also a single mom … She told me how it would be to feel contractions, and that when I felt any sign to notify someone, don't keep it to myself. She also told me I wouldn't sleep!"
>
> Single mother, 21

Social networks play a crucial role in the health and well-being of mothers. Female family members and friends are the most consistent and trusted sources of information about maternal and infant care. New mothers often expect these informal allies to fill gaps left by formal health services.

These networks are extremely valuable. However, their support is often limited by their own lack of access to resources, by misinformation, and by difficulty in coordinating or integrating with formal health services. In addition, support based on personal relationships is not always reliable. Pregnancy and new motherhood can isolate mothers from their networks, as frequently happens to unmarried women, who are stigmatized for becoming pregnant out of wedlock. In these cases, families and faith communities abandon the expected role of informal caregiver, leaving the mother socially excluded.

Social Networks are the First Line of Support and Information

Many women, especially single mothers, continue to live with their own mothers or other family members after giving birth, creating a close circle of care. These close relationships are an important source of health information, as few new mothers reported learning about maternal health or infant care from books, radio, television, or the internet. One new teenage mom described the guidance she gets from her mother in blunt terms: "I don't ask her anything—she tells me what to do."

Social Networks Can Provide a Bridge to Formal Services

Often, it will be a woman's mother or sister who encourages her to take health precautions or seek help from a formal service.

"At the beginning of the pregnancy I didn't think I would go to any of my controls (prenatal visits); [I was] going to do what my grandma did and use a midwife. But my sister told me that I needed to go to the hospital in case anything went wrong … and that I wouldn't get a [birth] certificate. So at four months I went to the hospital to start controls."

Single mother, 21

Experienced family and friends can be especially helpful in guiding expectant and new mothers around difficulties in accessing formal health services.

"I'm supposed to go to the policlinic—it's where people from this neighborhood are supposed to go. But it's too hard to get an appointment there, so I said I was a member of another neighborhood. A friend told me I should go and say this."

Single mother, 17

This kind of advice is sorely needed, especially for those experiencing motherhood for the first time.

New Mothers' Financial Hardship Strains Networks

For most new mothers in RAAN, pregnancy and motherhood increase existing financial hardship. Supportive mothers, fathers, and other family members allow single mothers to pursue school and work that would have been very difficult or impossible otherwise.

But the additional financial burden takes a significant toll on these sources of support. Given the rates of poverty and unemployment in the region, providing for another family member—and especially the medical needs of a new baby—is an ongoing struggle.

"When I see my milk running out I want to work but I have to think of my son. My mom says she wants to go out and look for a job here, but that she's here helping me."

Single mother, 23

Ruptured Relationships Undercut Support

"You think you have all your friends with you. But then you get pregnant [and] they abandon you. Don't think it's a good feeling!"

Single mother, 15

Pregnancy often causes a rift in relationships between a pregnant single woman and her family, friends, and community members. After birth, excitement over the baby is common, and women are usually re-accepted into their networks. However, during the vulnerable period of pregnancy, these women lose important sources of information and other support.

› Exclusion by families

One 17-year-old single mother described the response her own mother had to the announcement that she was pregnant:

"She told me, 'Go out exactly the way you left from here [before], but with your belly empty."

Single mother, 17

While the young mother was eventually allowed to stay in the home, the strain in the mother-daughter relationship discouraged the first-time mother-to-be from confidently seeking guidance and support.

Several interviewees related stories of single female friends and relatives being thrown out of their homes or sent away to give birth in secret.

› Faith communities falter

Religion is a powerful source of strength and motivation for many mothers in RAAN. While women hold tightly to their faith for support during pregnancy, they often find their church communities falling away during this period, leaving them feeling isolated.

One single mother who was active in the church prior to her pregnancy described her experience: "Up to when I was three months pregnant, I kept attending church. But after I started to show people kept looking at me… I dropped out."

While some women are able to re-enter the fold once their babies are born, interviews uncovered stories of women leaving their churches permanently or continuing to feel stigmatized. While churches host a variety of groups for women and youth, no churches were found to have groups specifically for mothers.

Casa Materna: A Critical Service in Need of a Redesign*

RAAN's casas maternas are based on a model of maternal care that is present throughout Latin America. These "maternal houses" provide a supportive environment for women who are in the final stages of pregnancy, especially for those with at-risk pregnancies. Women in earlier stages of pregnancy sometimes also stay at these homes in order to attend prenatal exams when such care is not available in their communities. While casas in some places provide significant medical services, their main purpose is to serve as a refuge and link to other sources of care.

There are 88 casas maternas spread throughout Nicaragua, and seven in RAAN.[10] The government has invested in them in recent years, seeing them as a key resource in the effort to reduce maternal mortality. Funded by the Ministry of Health, they are a critical bridge linking rural women to modern facilities in Puerto Cabezas and other cities.

Women come to the casa materna in Puerto Cabezas from communities near and far, with many making a journey of multiple hours over rough roads in designated ambulances. This casa recently got an upgrade—a brand-new building painted in bright shades of red, teal, and yellow, with beds for 16 women and mattresses for at least as many.

The facility has a full kitchen and a small medical exam room. Three nurses rotate to staff the facility 24 hours-a-day, and at least one doctor attends to the women staying there daily. Women get transported to checkups at the local public clinic—right next door—and then to the hospital to deliver their babies.

Despite these amenities, women interviewed were disappointed with the attention they received. Respondents cited harsh treatment and obligations to contribute to the daily operations of the facility while they were late in their pregnancy. When the facility's water tank broke, women were made to haul heavy water buckets from the backyard well. One woman told of being forced to mop floors just a few days from her delivery date.

Casa materna is supposed to be a place of support, but regulations meant to maintain an orderly experience can also reduce empathy between administrators and residents. Unable to leave the grounds to run errands or even take a walk without special permission, many women reported feeling boredom and confinement. Some expressed perceptions so negative that they referred to themselves as living like prisoners.

** This case study contains the actual experience of individuals, not composite stories. Names appearing in this case study have been changed to protect respondents' privacy.*

Though nurses on shift held "chats" about important maternal and infant health topics daily, there is little other stimulation. Even the potential of camaraderie among fellow expectant mothers was reduced as there was little socializing among residents.

Perhaps most damaging to the experience is the restriction on visitors. It is common according to the casa materna model to allow expectant women to bring family members and friends to accompany them through their stay. It seems that the casa materna in Puerto Cabezas follows a less inclusive model. This is counter to what many women expect—and are told—before leaving for casa materna. One member of the policy creation team observed the experience of a pregnant teenager who had been told by a nurse at her local health post that her friend could accompany her to the casa materna. When she and the friend arrived, the nurse on duty told them that the friend had not been authorized, and would have to leave. The friend had no way to return to her community, and knew no one in Puerto Cabezas to turn to for help. Fortunately, when the night nurse came on shift, she overruled the previous decision and allowed the friend to stay; but the situation could easily have ended much less happily.

Frustrated interviewees reported that they would share their experiences with women in their home communities, advising them not to go to casa materna.

Casa materna is literally a life-saver, and is a foundational resource for women. But women will not voluntarily separate themselves from their children, mothers, and partners during pregnancy to make an uncomfortable journey to a place where they will receive care—even high quality care—that they feel is delivered with disrespect. These negative experiences have secondary impact on the health of mothers, as women frustrated with their time at the casa materna reported that they would advise other expectant mothers in their community to stay at home rather than endure negative conditions.

Programmatic Opportunities

While the quality and availability of maternal and infant health services in RAAN are advancing, care is still defined more by the limitations of formal services than by the needs of mothers and babies. Lack of material resources, disjointed relationships between women and health providers, and other contextual barriers to change remain significant obstacles to improving the health and well-being of mothers and infants.

Faced with these gaps, mothers in RAAN draw on their social networks and other informal support to manage their own health and that of their growing babies. These networks ease confusion and mitigate weaknesses in the formal health system, but ultimately cannot ensure that babies and mothers receive the care they need.

The regional policy for children offers an opportunity to support access to quality maternal and infant care through a diverse range of programmatic interventions, which will be developed by regional policymakers and UNICEF Nicaragua. To achieve their desired impact, these interventions will need to respond to the interests and constraints of mothers, as well as the contextual factors influencing provision and accessibility of care which have been discussed in this report.

To illustrate ways this may be done, the following opportunities show how intentionally leveraging mothers' networks through new or expanded services, and channeling insights about the function of trust in the patient-provider relationship, can offer salient starting points for improving or supplementing existing care services.

These opportunities are illustrated through considerations for program design, a sample program sketch, and a continuation of Lidia's story, showing how the interventions described here could shape real improvements in care for her and her newborn.

Considerations for Policy Implementation

The following recommendations reflect insights into the capabilities, constraints, and demand of stakeholders engaged in this participatory policymaking process. They present guidelines that policymakers and practitioners may find useful as they are designing contextually-specific programmatic interventions to improve maternal and infant health in RAAN.

Leveraging Human Factors When Redesigning Formal Services Can Improve Health Outcomes and Increase Trust

Mothers in RAAN are often frustrated by unreliable and inadequate services supporting maternal and infant health. As a result, some mothers are discouraged from seeking vital care, and both mother and baby face heightened risks.

The implementation of this policy provides an opportunity to redesign existing services in light of the capabilities, constraints and interests of service participants, serving to increase trust and empathy between women and service providers. This can improve health outcomes in the short-run and encourage greater participation in health services in the long-run. Engaging mothers as co-designers could help ensure the relevance and fit of new and revamped services. Drawing from the human factors surfaced in this investigation, programmatic interventions might prioritize:

- Partnerships, private sector outreach, budget prioritization, international support, or other means of addressing key resource gaps among service providers;
- Efficient and low-tech ways to integrate and coordinate complementary services;
- Improvements to the content, tone, and style of communication touchpoints between patients and providers.

Empowering Networks Women Trust Can Better Supplement Formal Service Gaps

While personal networks are invaluable to mothers' and babies' care and well-being, mothers' reliance on these networks means children face unequal opportunities. Strengthening the connection between these networks and formal services, as well as building their individual capacities, can boost their ability to support children's growth while reducing the pressure on them to wholly provide. Focusing specifically on informal networks through which women provide services to other women may best leverage existing bonds of trust and shared experience into well-tailored service design.

Applications to Consider

The proposed policy applications that follow describe ways that the recommendations above could take shape through real-world interventions:

- Pay-for-success models have been shown to improve service quality and access to health care in other contexts. This model could be considered as a means of financing a network of maternal health social workers, encouraging services provided to meet pre-defined standards of quality. This concept is described in greater detail in the program sketch that follows.
- Many new mothers must choose between continuing their education or working and practicing exclusive breastfeeding. A human milk bank, tailored to community needs, could provide a source of breastmilk that would be easy for both working mothers and infant caregivers to access. Existing programs could encourage use of the bank by, for example, allowing subsidies for baby formula to be used for purchasing human milk at the bank.
- Trusted members of the community already provide extensive home-based community child-care. These individuals can be brought into formal home-based child-care systems to improve their access to resources and training. This would also provide greater awareness to policymakers about the overall supply of providers.

Program Sketch: RAAN Maternal Social Workers Program

What if all mothers in RAAN had a partner; a trusted and knowledgeable supporter to guide them through the system and get their babies off to a strong start in life?

The following program sketch imagines how this challenge might be addressed through one of the proposed policy applications described above.

WHAT IT IS

The RAAN Maternal Social Worker Program provides ongoing support to mothers by establishing a network of maternal social workers. The social workers offer care to expectant and new mothers from their first prenatal visit through the first year of a baby's life. Funded through a pay-for-success model, this program encourages efficiency of care while incentivizing measurable improvements in maternal and infant health.

HOW IT WORKS

Mothers-to-be are matched with a maternal social worker at their first prenatal checkup visit. The social worker supports the mother through every step of the pregnancy and through the first year of her baby's life. Social workers act as "account managers" to coordinate care, liaise with health care providers, and connect mothers with existing resources supporting nutrition, health, and livelihoods. They fill in existing gaps in care, providing information about health, nutrition, and local resources to mothers throughout their partnership. They also track the health status of mother and baby at key points throughout pregnancy and infancy.

Going beyond simply coordinating and ensuring delivery of care, the maternal social workers comprise a cornerstone of mothers' support networks, adding a valued and trusted source of support backed with guaranteed capacity.

Social workers are primed to act as change agents within the health system to improve its capacity and delivery of care. Social workers monitor and report on the provision of care and identify needs in the public health system. They advocate for improved care with individual providers, facilities, and institutional bodies.

Maternal social workers are part of an independent network established specifically for the program. A first step to implementing this program was to incentivize and coordinate a network of retired and semi-retired nurses and midwives, as well as nursing students and others training to enter the healthcare system, to provide care and administer the system. Under the current configuration, the structure of the network is tiered, with more experienced health workers paired with mothers at greater risk for complicated pregnancies.

Under the pay-for-success program, the provider (the network of social workers) must meet certain goals to be paid for their work. This funding model encourages care to match the real needs of infants and mothers, by defining "success" according to the most relevant and impactful indicators.

WHAT IT OFFERS

The program helps ensure that mothers and babies get continuous, personalized care during this crucial period, improving health outcomes for both. It covers weaknesses in the current system by providing a consistent and knowledgeable source of information, advocacy, coordination, and limited medical care and emotional support to mothers. It fills an important gap by humanizing maternal and infant health care for mothers by providing a steady and trustworthy source of support that straddles the line between health provider, advisor, and friend.

It reduces inequality of care that is currently inherent in the system due to the important role that a mother's social network plays in providing care. It encourages women to take up proven practices supporting their own health and that of their babies by delivering vetted knowledge through a trusted channel.

The program improves the capacity and functioning of the healthcare system as well. Having a social worker as a liaison encourages better coordination and knowledge-sharing between health providers, including between modern and traditional health providers. It capitalizes on existing human resources in the healthcare system (retired nurses, midwives, and others) and develops a pool of new ones.

By virtue of the target-based pay-for-success model, the program sets a precedent in funding health care, and in applying a rigorous data-driven and evidence-based approach to providing care. It standardizes and can expand the data that is being collected on key indicators of maternal and infant health, supporting improved targeting of program design and delivery. Definitions of "success" for the program include meeting improvement targets in certain indicators of maternal and infant health; piloting and implementing improved coordination systems linking care within and across providers and facilities; developing information or health-tracking materials for mothers.

By necessitating careful documentation of key health indicators, this program builds actionable understanding of women's and infant's health needs and promotes evidence-based care, with the potential to act as a model to be used to spur improvements throughout the system.

WHO IS INVOLVED

actors	*functions*	*motivation for participating*
Pregnant women & new mothers	Benefit by partnering with a maternal social worker.	Desire reliable, trustworthy care and support for selves and infants; frustrated and intimidated by existing system of maternal and infant health care.
Retired nurses & midwives	Provide care as maternal social workers.	Need income; have expertise to easily mobilize; interested in supporting mothers and babies.
Health providers in training	Provide care as maternal social workers.	Need income; want to build expertise to establish career; interested in supporting mothers and babies.
Maternal and infant health providers	Communicate and work with social workers to provide care to mothers and infants and help social workers identify needs and potential improvements to be made to the system.	Interested in improving quality of care for mothers and babies; frustrated by under-resourced and non-integrated care that makes their work difficult and decreases their effectiveness.
Health facility administrators	Work with social workers to identify and implement changes; ensure social workers have access to health providers and can collect necessary data.	Interested in improving quality of care for mothers and babies; face pressure and expectations to improve maternal and infant health outcomes; frustrated by persistent lack of human and material resources.
Secretariat and Commission on Women, Family and Children	Coordinate development and implementation; build out, prototype and refine program model; coordinate establishment of social worker network; liaise between program partners; support outreach and communication to program users and providers.	Invested in and committed to supporting women's and children's health and well-being.
RAAN's branch of SILAIS (the regional ministry of health)	Ultimately responsible for funding and administering the program. Record, store, and deploy data collected by the system.	Improving maternal and infant health outcomes is a top priority; eager to improve data gathering on key health indicators; interested in improving efficiency of health services.
Local universities and other training centers for health providers	Work with the social worker network administration, health care facilities, and regional officials to structure training and internship opportunities to support the program.	Could be eligible for funded training programs and/or institutes to support the social worker program; program expands employment opportunities for students.

PICTURING THE POSSIBILITIES: LIDIA'S STORY REIMAGINED

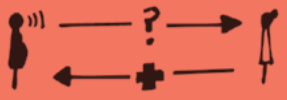
The following journey illustrates how Lidia's experience of pregnancy and motherhood might be improved through the hypothetical interventions described above.

PRENATAL CARE

1. The local clinic matches Lidia with a maternal social worker, Marta, a retired midwife.

2. Marta gives Lidia information about nutrition and potential pregnancy complications. She connects Lidia to casa materna's support group for pregnant women without partners.

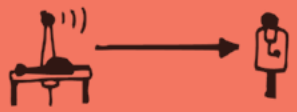
3. As a trained midwife, Marta is able to check on Lidia and answer her questions between controls.



DELIVERY

4. When Lidia's water breaks, she sends an SMS to Marta, who meets her at the hospital.

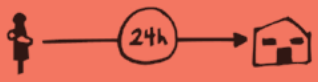
5. Marta attends Lidia throughout her delivery, supporting her communication with the hospital staff.



6. Marta documents the care Lidia receives, reporting to the regional branch of the ministry of health.

NEONATAL CARE

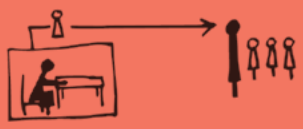
7. Lidia returns home after 24 hours.



8. Marta visits a few days after the birth to check mom's and baby's vitals, and continues to check in every two to three months for a year. She submits the baby's height and weight to the national registry.

INFANCY

9. Lidia leaves her son with a cousin offering community child care in her home, allowing Lidia to complete her teaching credential.



10. Because she's enrolled in job training, Lidia can buy supplementary breast milk at the town's new milk bank at a reduced rate, making it cheaper than formula.

insights and opportunities:

social values, discipline, and self-development for children

In RAAN today, many children do not receive the emotional and intellectual support they need to surmount the challenges of adolescence and adulthood. Sustained positive relationships with adults and space to develop their own capabilities and character can foster children's development into productive adults. There is a need for more opportunities allowing children to explore and define their own paths to self-development and to foster intergenerational relationships based on mutual respect and shared values.

Young people in RAAN today go through daunting struggles in the transition to adulthood. Contextual challenges that impact all residents—such as poverty and the lack of formal services—are compounded for adolescents by shifting social norms and decreasing adult support. These factors contribute to visible increases in unhealthy social behaviors. There is a widely-held perception that juvenile delinquency, gang participation, and drug and alcohol use are on the rise, and studies show that young motherhood is increasing.[11]

Though distressed by these growing problems, many adults in the region feel powerless to instill good values and behavior in young people. Parents and teachers alike feel that strict discipline, enforced through physical punishment, is the tried-and-true way to help children develop into responsible adults. Many are frustrated with the national Law on Children and Adolescents, feeling that its prohibition on corporal punishment has stripped them of their right to discipline children effectively. They feel that the balance of authority between adults and children has been turned upside down.

There are many reasons for the risk in today's teenagers' lives, as well as for the breakdown in relationships with adults. No single policy can

address them all. However, the regional policy offers an opportunity to put in place systems and interventions to help young people by supporting their social development and self-realization during childhood. In the process, it can encourage children, youth, and adults in elaborating shared values together.

This investigation surfaced insights into the interplay of contextual factors impacting the course of children's personal development in RAAN, and identified opportunities for strategic intervention.

This section will give texture and detail to the relationships between adults and children, identify specific pain points in adolescents' transition to adulthood, and elaborate opportunities where policy-driven interventions may be able to support improvement.

Adapting to Community Priorities

The issue of children's discipline and values was not originally identified as a priority objective for the policy framework to address. However, the issue was consistently raised as a key concern by residents reached through community consultations across the region. As responding to the expressed needs and priorities of constituents is central to the co-design approach, the policymaking team included this issue as one of the two key objectives for further investigation.

The investigation of this issue was designed to understand the values, expectations, and incentives around good behavior in children, as well as the ways that children are supported in developing character, values, and sense of self. To explore these factors, researchers interacted with parents, children, adolescents, youth gang members, school directors, teachers, and coaches through interviews and observations in schools, church, and community spaces, as well as at after-school activities.

Service trials for this investigation included two policymakers joining in classes at public and private schools. In the schools, policymakers were able to connect with children directly about their values, relationships with adults, and views on their own self-development. These experiences aided policymakers in understanding how influences in children's formal learning environments impact their social development.

Meet Kaku: Searching for a Place to Grow

Kaku
12 years old

Home:
Puerto Cabezas

Lives with:
mother, two younger sisters

Pursuits:
passionate soccer player; has a pick-up game with his friends every Saturday

Challenge:
is facing pressure to join the gang that controls his neighborhood

Kaku's Story

Kaku has recently found himself spending more time with gang members who live in his neighborhood, the Cocal. The Cocal is one of the roughest areas in Puerto Cabezas. When he's not in school, Kaku drifts around the neighborhood, hanging out with the guys from the gang; at least then he has someone to talk to.

Kaku knows that his cousin Fernando would be against him joining the gang. But it seems his choice is already made. He's heard that guys from the rival Spanish Town gang have started to ask about the Cocal's newest member. This could mean serious trouble ahead for Kaku. In the last confrontation between the Cocals and Spanish Town, Kaku's friend Slah was beaten so badly he missed two weeks of soccer games.

Kaku knows that the next time the Spanish Town gang threatens Slah, he'll need to be ready to defend his friend so that Slah will do the same for him.

Watching this situation unfold, Kaku's mother is worried. But she is always exhausted after a full day working at her small comedor and taking care of Kaku's two younger sisters. Despite her growing anxiety about the direction Kaku is taking, she hasn't yet found the time to visit the school or discuss her concerns with Kaku's teachers.

Kaku's Support Network

friends

Strongest support

Slah & Mamiskra, members of the neighborhood gang

13, 14, best friends and in Kaku's class at school.

extracurricular activities

soccer team

An informal soccer league that teenage boys play in on the weekends.

Kaku

family

Moved away

Fernando, Kaku's cousin

17, a student at Kaku's secondary school.

education

Kaku's school

A public secondary school in the rough Cocal neighborhood.

family

Silvia, Kaku's mother

29, she runs a short-order restaurant in their neighborhood.

church

the Cocal's Moravian church

The majority of the city's population practices the Moravian faith. The church is a key social hub as well as a spiritual center.

strength of support

stronger

weaker

		support provided	obstacles faced
Silvia		Silvia works long hours to keep a roof over the heads of Kaku and his two younger sisters.	As a single working mom, Silvia has little time to be involved in Kaku's life. She feels guilty about being unable to afford to send Kaku to a private high school where he could get a better education.
Fernando		Fernando is a role model for Kaku. They used to hang out almost every day, and SMS music videos to each other during class. Fernando is smart, and often helped Kaku with his homework.	Fernando recently dropped out of school to work in the Minas region of RAAN. With no money for university and no job prospects in Puerto Cabezas, he felt it was the best choice for his future. He promises to return to visit Kaku soon.
Slah and Mamiskra		Slah and Mamiskra are quickly filling the space left by Fernando in Kaku's life. The three hang out after school. They wear bracelets to show that they're part of the same group.	Neither takes school very seriously; they both get in trouble for skipping class a few times a month. They introduce Kaku to the older boys in the gang, who start inviting Kaku to drink with them after school.
school		Most teachers at the school speak Miskitu, Kaku's first language. Some teachers bring creative lessons and projects to school. Others aren't as interested in teaching. Even though corporal punishment is not allowed, some teachers pull students' ears or force them to hold heavy books in their arms for hours.	Kaku's school is sorely in need of an upgrade, with doors missing from classrooms, a small stock of outdated textbooks, and only enough chairs for half the students. Kaku used to like art class, but it was cut so its budget could go to more basic needs.
church		Kaku's mother is strongly religious and has taken her children to church with her every week for as long as Kaku can remember.	Kaku is less and less interested in the youth groups at church.
soccer team		The league is really just four groups of 7-10 guys that show up at the field on Saturday mornings. But the boys are dedicated—they play every week, rain or shine. Kaku is a talented midfielder, and helps younger boys hone their skills.	With no actual budget to run the league, everything is informal—there are no uniforms, and the boys play in whatever shoes they can afford.

Fostering Self-Development and Shared Social Values

Opportunities for Self-Development are Limited

Children everywhere crave opportunities to stretch their minds, to explore, and to develop their sense of self. Studies show that creative, athletic, and other developmental activities are vital to intellectual, social, and emotional development. They are also valuable in learning responsibility, discipline, and perseverance—the values that adults in RAAN want to see the next generation adopt.

Children in RAAN rarely have these opportunities for self-development due to a lack of resources to fund relevant programs.

"There are a lot of things that work to open little kids' minds…we grew up with grown people's minds…[I want my son to have] access to better opportunities, that I didn't have."

Mother, 20's

Budget-Tight Schools Offer Few Options

Public schools struggle to provide even the most basic facilities for learning (including supplies and teacher salaries). They often rely on private schools and universities to support their operations through loans of equipment, or even contributions of potable water. In this context, school directors often see programs that encourage creative thinking as unattainable luxuries.

There are slightly more options available in private schools, such as student bands and olympiads. These schools are more accustomed to supporting their own operations through fundraising events and parent-led efforts.

Few Children Can Afford Available Options

Even when special programs exist, they are often only accessible to a limited group of children, as schools usually must pass the costs to students. At a private primary school, for example, only six of 350 students were able to afford the extra monthly tuition of 150 cordobas (less than $10) required to participate in the school band. Unless programs are completely free, they are out of reach to the children who can stand to benefit from them most.

School Policy Limits Options

It takes an extraordinary director to cobble together resources and support for extracurricular programs. However, there is little institutional support offered to directors and teachers seeking to finance creative approaches to education. Directors of both public and private schools report poor communication with regional officials and inconsistent support for enrichment programming.

"[Government officials] don't come here … [even] if we go and beg, they won't come here because we're private … It's a waste of time in taxis to go there."

Private school director

From the Policymaker's Notebook

A regional policymaker who participated in private primary school classes found that teachers' approaches to pedagogy were more active and inclusive than he had imagined. His observations reflect sentiments from other educators who would like to introduce more creative pedagogy into the classroom, if they can access the training and resources to do so.

"[The students] are all laughing and participating in class. It reminds me a lot of my childhood, but it is very different, because the rigidity of the teacher [in the past] doesn't match with this. Before, the teachers were in their seats and dictated the classes from the texts. But what we learned was from memorization, and now it's much more dynamic."

Francisco Pomares of the Regional Council of RAAN
reflecting on his visit to a private primary school

Children Are Hungry for Activities

Even though opportunities for self-development are few and far between, children in RAAN go to great lengths to make these opportunities for themselves. In Puerto Cabezas, boys head out to the soccer fields at 5:00 a.m. on Saturday mornings. Girls form their own dance troupes, choreographing routines and organizing performances with no adult support. The researchers even found young gang members leading art classes for small children.

This willingness to work around the limitations of the environment suggests that investments in extracurricular activities will be received with enthusiasm.

Additionally, a few stand-out programs show how activities help kids gain life skills, learn values, and even succeed academically. One of the most notable in Puerto Cabezas is an after-school baseball program run by a local doctor. This program is described in more detail in the case study on page 70.

Attitudes About Discipline Limit Development

The rules and expectations children live with, at home and at school, leave little room for children to earn praise and validation from the adults in their lives. In every sphere, children are encouraged to act like adults rather than enjoy childhood as a time of exploration. Enforcing discipline is a top priority for both parents and teachers. As a result, children get fewer chances to make their own decisions, explore their identities, or develop their character.

Schools Emphasize Discipline Over All

Schools often emphasize standards of behavior that aren't directly linked to achievement or learning, but are more focused on order for order's sake. For some of the directors and teachers we spoke with, discipline even outweighed academic achievement in importance. Trying to maintain strict order, schools define success by a narrow set of tangible and quantifiable measures, such as giving students numeric scores measuring their levels of "responsibility" and "solidarity" and placing great importance on following the school dress code.

With standards of behavior often based on a superficial or confusing rationale, children understand keenly that discipline is enforced for its own sake. With arbitrary rules and expectations, children have no incentive to comply, creating the space for a habit of disobedience. This can lead to later difficulties in differentiating between appropriate and inappropriate behavior.

Parents' High Standards Come With Pressure

Most children face strong pressure from parents to follow strict standards of discipline and behavior. Parents dream of "professional" futures for their children, and try to channel them into adult-like behavior early. Almost all parents interviewed for this research said their proudest moments came when their children brought home good grades.

They feel that these are the ingredients for a happy, successful future, and that strict discipline can guide their children toward that success. They invest and sacrifice much for their children, and expect for kids to fulfill their end of the bargain by succeeding academically and avoiding pitfalls like drug and alcohol use and early pregnancy. They believe in using their authority and, more often than not, physical punishment to enforce these standards. Concerns about self-expression or other measures of success are secondary.

> "You have to be vigilant—right behind, right behind, checking on their every movement."
>
> Mother, 40s

Negative Encouragement Harms More Than it Helps

Currently, adults often motivate children by threat or deprivation more frequently than through positive encouragement. Children have renamed report card day "the day of the belt;" they expect to be hit if their grades do not meet parents' expectations. At school, the response to "bad behavior" is often to send children home, rather than engage with them on the problem.

Teaching through negativity has been shown to encourage depression, low self-esteem, and delinquency in young people. Negative enforcement may also send a message to children that adults do not trust them to make their own decisions, leaving them feeling discouraged and primed to withdraw.

An Interest in a New Approach

There are signs that attitudes regarding discipline and character-building may be changing. Some parents and teachers interviewed expressed an interest in encouraging a more holistic path to development for kids, even if that meant loosening the traditional rules of behavior. However, the lack of widespread or institutional support stifled those who would explore these options.

"The kids are a little undisciplined, but I believe that we as teachers should adapt to their level; that we as teachers have to give tenderness, care and appreciation."

Public secondary school teacher

An Educator's Perspective:

Maribel
Director of a public primary school in Puerto Cabezas, 40s

Maribel manages more than 400 students from ages 5 to 12 at this primary school near the center of town.

Her school has no classroom doors, and not enough chairs or textbooks for all the students; there is not even running water for the entire day. With such basic needs unmet, it can be difficult to rationalize spending money on expanding programs for sports, arts, or more creative approaches to teaching, even though she knows that such programs would be beneficial and inspirational for students. She wants to get funding for more sports equipment, but the Ministry of Education hasn't fulfilled her budget request.

Getting support from parents is difficult. Maribel says that she can count the number of excellent parents on her fingers. She estimates that only around 20 percent of parents come to the school to meet with teachers or discuss their child's progress.

She understands that her students' parents are under a lot of stress—most of them are single mothers. But it puts more pressure on her teaching staff to deal with children who aren't getting a lot of support at home.

It's not just about discipline; parents are not participating like they used to in other ways. For example, young parents aren't interested in continuing traditions like celebrating Mother's Day with poetry readings. Still, she knows that many parents want to be involved. Some have talked about wanting to help make improvements to the school buildings. But they don't have the time or money to follow up.

Strict teachers are better—they keep order in their classrooms. Order is necessary here. As kids get older, they don't want to keep going to school. It is important to instill discipline in children at a young age so that they don't go astray.

She feels that the ban on corporal punishment has made her job much harder. But the law is the law—there's nothing she can do about it.

Families Struggle to Support Children's Social and Emotional Growth

For most children, parental guidance and role modeling play the central part in their social and emotional development. In RAAN, economic, social, and other environmental factors weaken parent-child relationships, and leave children lacking nurturing adult figures and positive models of behavior and good values.

Parents Struggle to Provide

Given the economic realities in RAAN, for many parents, providing the minimum of food and shelter consumes the majority of their time and energy. Parents in this situation struggle to provide the interaction and consistent guidance that children crave.

This is especially true for single parents, generally mothers, who face even steeper challenges to stewarding their children's social and emotional growth.[12] With their energies often spread across multiple children, focusing attention one at a time to provide concentrated support is extremely difficult. Mothers in this situation often feel torn between their desire to lead their children with love, and the practical needs of running a household on their own.

"Before, I lived in my sister's house, but when I saw her taking away a plate of food from my son, I left. The friend who also sells [vegetables] here with me gave me a room where I could stay. I don't have a home ... I don't know how, but I will fight for my children ... I rest for four hours at night; I come here at five in the afternoon; later, like at eleven at night until two in the morning, I wash clothes. At four in the morning I start to make breakfast for my little ones, and after that I come to the stand. Sometimes I feel exhausted, but I have to fight."

Single mother

There are few spaces or activities which serve the needs and interests of both struggling single moms and their children. For children, this means there are additional emotional as well as practical barriers to getting the support necessary to reach their full potential. With the most important source of guidance unavailable, they have to find their own mentors.

While recognizing these parents' struggles, teachers feel that parents often treat school as a substitute for parenting, and expect teachers and directors to fill in as moral leaders and head disciplinarians in addition to educating children. Teachers estimate that 75 to 80 percent of parents do not take an active role in their children's education. Most teachers feel that parents have the will to help, but don't have the "socioeconomic status," as one put it—meaning financial stability, education, time and resources—to be involved. Teachers see this as especially true for single mothers.

Parents are primarily compelled to get involved in schooling when their children have serious discipline problems. Some schools have been exploring parent advisory boards to encourage more family involvement in academics and children's lives. So far these seem to have had limited success—as yet schools have not found a way to make parental involvement more feasible for struggling parents.

Children Find Few Consistent Positive Role Models

With families under strain, children in RAAN often have few adults around them to demonstrate how standards of good behavior can help them achieve their dreams. The experiences of boys and girls are different, but follow parallel tracks:

› Shifting values and mixed messages for girls

While women are leaders at all levels of society in RAAN, the concepts of womanhood and motherhood are still inextricably linked. Despite the admonition girls and young women receive to not become pregnant, the experiences of those around them imply that motherhood, and especially single motherhood, is the expected path to becoming a woman.

Girls in RAAN watch their older sisters and cousins have babies as teenagers before moving on to the next phase of life. Mothers in RAAN describe the experience of becoming mothers as almost inevitable, a common stage of development.

Preparation girls receive for adulthood is in essence preparation for motherhood: when girls are 12 or 13, mothers begin teaching them to cook, clean the house, and take on other domestic duties. While these are of course beneficial life skills, that this type of training is just for girls implies that they should be ready for domestic life despite what they are told about the importance of finishing school and becoming a "professional." In more rural parts of the region, this guidance toward domesticity and motherhood is even stronger.

Young and experienced mothers alike did not see school and formal sex education playing a significant role in giving girls the tools to take charge of their fertility.

"[My dream is] to have a girl who is a professional, not an adolescent mom, to see three professional girls"
Single mother, 40s

Still, mothers of pre-adolescent and older girls seem to be making a stronger push to ensure that their daughters avoid the struggles of teenage pregnancy. Many reported speaking with their daughters about the importance of not becoming pregnant, linking it to the goals of finishing school and getting a job. Others are proactively helping their daughters get birth control. This openness about adolescent sexuality and pregnancy suggests that there is an acknowledgement that the issue of young motherhood requires a response at multiple levels.

› Absence of models and low expectations for boys

Boys are told to achieve in school and become professionals, but research suggested that few have men in their lives who reinforce that goal by example. Examples of adulthood that are accessible to boys suggest a future of struggle.

While many fathers are committed to supporting their families, the available employment options in the region force a difficult choice. The most common jobs—farming, fishing, mining, driving—often take fathers away from their children for extended periods of time, creating distance in the relationship between them and their sons and daughters.[13]

More often, boys see that men get a kind of pass in fulfilling their responsibilities as providers. Single mothers we spoke with had trouble naming positive male role models for their sons. Most of these mothers had also given up on trying to get any form of child support from the fathers of their children.

The lack of responsible male figures in their lives suggests to boys that adults don't actually expect them to live up to what adults say are the standards for manhood.

The consistent images of adulthood children see as they grow are more powerful than words that seem disconnected from reality. Mixed messages send confusing signals to children about how they should act and who they should or could become. Without strong adult guidance, children can easily feel lost as they try to make sense of these messages and navigate the road to adulthood.

The Puerto Cabezas Baseball Academy: Local Innovation to Build on

"Baseball is no longer just a sporting activity... we have kids who are looking for help—kids who are kids of single moms who spend the entire day working to feed their families."

Dr. Wilfredo Cunningham Kain, founder of the Puerto Cabezas Baseball Academy

Each day after school lets out for the afternoon, boys across Puerto Cabezas rush to the town's pockmarked ball fields, some even running or biking five kilometers to get to practice on time. They are members of the town's Baseball Academy.

Founded by Dr. Wilfredo Cunningham Kain, who started the program to encourage his young son's love of baseball, the Baseball Academy has evolved into an after-school and weekend program that supports more than 400 boys on the road to manhood. Some dream of growing up to play in the U.S., while others play for pure love of the game, or as a much-needed diversion in a place with few opportunities to play. But Dr. Cunningham Kain isn't shooting to field the country's next all-star team. In conversation, it quickly becomes clear he has greater plans. He envisions a formal baseball academy that produces not just players with top skills, but, more importantly, young men with strong values.

Such a program is greatly needed in Puerto Cabezas. Young people often receive little support at home and see few options for their futures. They lose interest in school; for boys, gangs, drugs, and alcohol use seem to offer solace. There are few systems to catch these boys as they begin to withdraw.

The baseball program serves as both a safety net and a springboard. Each coach oversees about 100 boys and serves as a mentor, albeit

---

* *This case study contains the actual experience of individuals, not composite stories.*

an overburdened one. The program funds all expenses, so that no boys are excluded because of poverty. And there are rules: the boys have to arrive on time and with clean uniforms. They have to keep up their studies by at least going to class. And they have to get at least one adult family member involved in the program.

This last requirement is the least-often followed. It's hard—not a lot of kids have parents who can spend the time. But baseball is a great forum to build relationships, especially for kids that have relationships with their fathers. Dads love to watch their sons sliding into home or throwing a winning pitch.

The program actively seeks to place players in the Nicaraguan national team and minor league teams abroad. Already, although the program in its current state is only five years old, the program's team of 11-13 year-olds have won the national youth championship for the past three years.

This structure is the ideal place to teach discipline and values that stick, because it's tied to an activity kids truly care about. It matters to them if they have to do their warm-up run alone because they've arrived late. It matters if they can't play because they haven't been going to class.

While the program has not been formally evaluated, its growth, and the players' dedication to keeping up their end of the bargain, speaks for itself. Dr. Cunningham Kain tells the success story of a boy who had been withdrawing from school, getting heavily involved with gangs, and who seemed to be out of control. He started participating in the program and discovered an innate talent for the game. Over time, and with support of coaches and teammates, his confidence and self-esteem grew. He re-engaged in school, dedicated himself to practice, and eventually became the program's star pitcher, playing at the national level.

The program has been adaptive, changing to fit needs and make the most of available resources, driven by passion for its mission. This organic growth has been one of its strongest attributes. Any program attempting to open up similar spaces to other children through other activities can look to it as a model.

It is also important to note that over-regulation would threaten to curtail the flexibility and customization that has enabled it to support children through difficult family situations, trouble with gangs and other obstacles.

There is significant potential to increase the program's impact. Dr. Cunningham Kain is seeking funds to hire a team social worker and a child psychologist, as well as more coaches trained in nurturing boys' athleticism and character. But right now, the program runs largely on heart, with funding coming in from the Regional Council, fundraising help from the Commission on Youth Baseball, and the good doctor's own pocketbook. Programs like the Baseball Academy merit consistent funding so that they have the capacity to help kids thrive.

Programmatic Opportunities

The opportunities below represent entry points for potential programmatic intervention. They reflect the needs and capacities relevant to shaping children's relationships with the communities, peers, and adults in their lives. Most of these areas address several relationships, reflecting the complex and overlapping social bonds influencing the experience of childhood. Priority was given to identifying opportunities that offered near-term impact while fostering sustained change over time.

As in the preceding chapter, these opportunities are illustrated through considerations for program design, a sample program sketch, and a user story—this one showing how these opportunities, once realized, might shape Kaku's life.

Considerations for Policy Implementation

The following recommendations present considerations for program design. They suggest ways that interventions under the policy may leverage existing assets and actors in children's communities to better support children's self-development and a negotiated understanding of shared social values between kids and adults.

Expanding and Validating Relevant Activities Can Foster Children's Agency and Creativity.

There are few enrichment activities and opportunities through which children can excel or show their skill outside of academic performance. Further, academic achievement is currently one of the only well-recognized means for a child to receive validation from adults.

Individual efforts by teachers, schools, and others in the community currently offer some children programs that encourage creativity and clearly support intellectual and personal growth. Policymakers may look to these initiatives for useful models and partnerships for expanded programming. Mobilizing institutional support and strategic funding for such programs may increase the scope and number of opportunities, as well as support greater access and sustainability.

To promote community interest in more holistic means of child development, programming may include recognition activities or other locally-relevant means to validate and reward these creative pursuits, signaling their value to both adults and children. Activities that put children in touch with their cultural heritage—a priority for parents, as well as a driver of positive identity formation—may provide one salient means to support this goal.

Highlighting Accessible Role Models Can Support Positive Behavioral Norms and Expectations.

Many children in RAAN lack accessible role models to pattern their behavior after. Policy implementation presents the opportunity to connect children with relatable and relevant positive role models through several channels. Focusing on building relationships and fostering dialogues rather than simply relaying messages around good behavior has the potential to amplify impact.

There may be opportunities to embed dialogues around examples of good behavior and values in existing programming. Sexual education could be an example of one such opportunity, and an especially salient one through which to highlight positive gendered behavior.

Strategic programming may also create opportunities that help connect children with positive living role models who are accessible for sustained guidance. Mentorships and peer learning opportunities are two potential avenues. It may also be beneficial to consider spaces and activities that provide forums for parents and children to negotiate, act out shared values, and model positive behaviors when designing programming to meet this goal.

Addressing Constraints in the Relationships Between Parents and Children Can Foster a More Nurturing Environment for Children.

Many parents in RAAN struggle to earn a sufficient livelihood for their families, channeling their full energies into meeting basic daily needs. Programming aiming to support child development by strengthening parent-child relationships could succeed by providing opportunities for engagement that also address parents' financial hardship and overextension. This guideline may be especially salient applied to interventions specifically aimed at single mothers and their children.

Actions to Consider

These programming ideas represent how the above guidelines might translate into effective interventions supporting self-development, discipline, and social values in children if well-tailored to the human needs and contextual conditions of the region.

› Community gardens have been shown to have numerous benefits for participants' physical, social, and emotional health. In Puerto Cabezas, creating community gardens in select neighborhoods and giving children and older youth roles in coordinating and managing them could help children learn responsibility while building positive peer relationships and self-esteem. Harvests could provide supplementary food to struggling families, supporting physical health and nutrition. By encouraging and structuring family involvement in maintaining the gardens, they could become spaces for children, parents, and the community as a whole to strengthen connections and share the benefits of cooperation.

› Children develop social skills and absorb norms for behavior through play. Developing a game that demonstrates and promotes positive role models could introduce children to role models through an engaging and enjoyable medium. This could take the form of a card game featuring individuals with admirable traits and accomplishments. Focusing on local role models familiar to children could make them more accessible and make the characteristics they are embodying seem more achievable.

› Local awards could validate and make public role models who exist in the community, while rewarding kids who are pursuing personal development. By hosting public competitions and awards ceremonies for a range of different accomplishments—artistic, athletic, public service—desirable traits of responsibility, dedication, and social conscientiousness could be fostered in ways that resonate with a wider array of children. This kind of recognition could reward and encourage children to be involved in community life and highlight peer role models for youth.

› Connecting children with the resources and support to pursue their own development through extracurricular pursuits offers a chance to nurture agency, responsibility, and social skills. A program to award grants in support of youth-led arts, culture, and civic engagement projects could provide one means to this goal. This concept is described in greater detail in the program sketch that follows.

Program Sketch: Kids in Action

Children in RAAN have few opportunities to get involved in activities that promote play, creativity, and character-building. Children need such outlets to develop socially, emotionally, and intellectually. But few enrichment programs exist, and the ones that do are out of reach of many because poverty makes any cost of participation a barrier. The activities that exist aren't necessarily tailored to promote the kinds of skills and values—responsibility, discipline, problem-solving, and leadership—that parents believe are valuable, or that will prepare them to become successful and productive members of society as adults.

What if children and youth in RAAN had the support and the resources to follow their passions, build character, and make real change in their communities? What if participation was determined by vision and determination, not by ability to pay?

The following program sketch imagines how this challenge might be addressed through one of the proposed policy applications described above.

WHAT IT IS

The Kids in Action program teaches children to work for their dreams by offering community-based funding for children- and youth-developed and -led art, culture, sports, and civic projects. Children are already taking the initiative to start their own programs—dance, sports, and others. This program helps those children get the resources to take their ideas further, and encourages others to take responsibility for creating the opportunities they want.

The program is partly managed by children and youth, providing role models and encouraging the development of important life skills. It also supports children as creators of social change: by completing projects and managing the program, young people will be incentivized to be entrepreneurial and active citizens, promoting lifelong civic engagement.

HOW IT WORKS

Communities offer grants to groups of children and youth who submit ideas (simplified proposals) to undertake an arts, culture, sports, or other project demonstrating creativity, teamwork, and civic values. Examples of likely projects include hosting a dance competition, launch a neighborhood cleanup initiative, host a soccer tournament, paint a mural—the scope is wide open.

Children and youth who have developed the project take on roles of managing it, learning about goal-setting, time management, budgeting, and teamwork. Naturally, adults administer, guide, and supervise as well. Each project must have a dedicated adult (or vetted youth) mentor to be funded; this adult is accountable for tracking children's progress and seeing that the goals of the project are met.

In the beginning, the program is administered jointly through the Commissions on Youth and on Women, Children and Family, and the Secretariats on Youth and on Women, Children and Family. Youth help manage the program through the Commission on Youth—representatives from local school governments could be invited to help choose which projects to fund, for example. As the program expands beyond Puerto Cabezas, community-based committees could take on local administration of the program.

The program could start small—perhaps with five grants of $100-300 each—and the competition for the initial round can be used as a tool by teachers to shape lessons in civic engagement, project planning, and creative thinking.

Funding decisions would be made according to criteria determined with the input of community members, children, youth, and others. Criteria could include: involving a minimum number of children and youth in the project; value of the learning goal of the project; securing at least one youth or adult mentor who will provide guidance and accountability throughout the project; involving the community in some way, demonstrating the achievements of the project team and building support for youth-led initiatives either through a final performance, event or product.

Yearly awards for the most successful or innovative project provide additional recognition for kids and youth who take initiative.

The program has the widest opportunity for impact if paired with the proposed program of funding fellowships for youth who participate in and lead community-benefit activities, such as teaching children music, arts, or dance. These fellows would become project mentors, supervising projects and advising children through the process.

WHAT IT OFFERS

This program offers children and youth the opportunity to pursue their passions and engage in activities that encourage their personal growth, while gaining recognition and validation from adults, peers, and the community.

By leading and participating in projects, young people gain an array of skills and capacities that will serve their growth and eventual transition to adulthood. The program structure provides multiple opportunities for mentorship, putting young people in touch with role models, and developing them as role models for their peers.

Children develop a sense that there are possibilities for them to succeed, which encourages them to experiment, take risks, and accept responsibility in a supportive way. Participating in the program encourages them to think entrepreneurially and conveys the message that they can pave the road of their own futures.

Projects and the program overall provide visibility and recognition for children's accomplishments, increasing respect for the agency and abilities of children and youth. This makes the program a platform for shifting relationships between kids and adults toward one based on mutual respect.

Finally, the program has the potential to increase civic spirit and engagement among children and adults, as projects demonstrate community cooperation and create real community benefits, depending on what projects are proposed.

WHO IS INVOLVED

actors	*functions*	*motivations for participating*
Children	Grantees and project participants	Want opportunities to pursue their own interests; are interested in improving their communities.
Youth	Grantees and project participants; project mentors; program administration support	Want opportunities to pursue their own interests; are interested in improving their communities; want opportunities for scholarships offered by youth fellowship program.
Commission and Secretariat on Youth	Administers the program	Have a mandate to support youth development; are interested in more holistic opportunities to pursue this goal.
Commission on Women, Family and Children	Administers the program	Have a mandate to support child development; are interested in more holistic opportunities to pursue this goal.
Parents	Project mentors and supporters	Want to help their children have opportunities to develop life skills.
Teachers	Project mentors and supporters	Want to provide more creative forums for children's growth.
Leaders of local sports and culture projects	Project mentors and supporters	Want to provide more creative forums for children's growth.

PICTURING THE POSSIBILITIES: KAKU'S STORY REIMAGINED

This depiction of Kaku's community life illustrates how the hypothetical interventions described above could provide him with much-needed guidance and support.

COMMUNITY GARDENS

Every Wednesday after school, Kaku meets his mom and little brother to work on their plot in the new community garden. The vegetables they grow help Kaku's mother stretch her food budget.

OLYMPIADS

Kaku's team placed first in math at the latest city-wide event. In the weeks before the event, he and his teammates stayed after school every day to practice. His mom was not able to leave work to watch his victory, but Kaku was proud that she arrived in time to watch him receive his certificate at the awards ceremony.

ROLE MODEL GAMES

Lots of the kids in town have started collecting cards with profiles of athletes, singers, and actors, and they compete with each other to win more after school. Kaku's made it his mission to collect the role model cards with the highest "brain power" scores.

YOUTH DANCE CLUB

Kaku has started a dance group together with four friends; they won funding from the city and are working with a 5th-year student—a dance master who's earning a city scholarship teaching dance to younger students—to organize a dance competition with two groups from another neighborhood.

looking forward

"[Participating in the research] made me acknowledge that maybe we need to visit more—it's not just the business of monitoring. We need to give an answer."

Cynthia Miguel,
Secretary of the Commission on Women, Family and Children, Regional Council of RAAN

This report represents a bridge to the next stage of policy creation. It is the result of the first stage of the policymaking process. It offers new insight into the interplay of human factors and contextual conditions around two key development challenges facing children in RAAN. The opportunities to channel these findings into human-centered interventions suggest ways that the policy's promise can be realized in the lives of the region's children.

Policymakers and UNICEF Nicaragua are moving ahead, translating this new understanding and fresh tool set into a final policy framework and accompanying applications. To continue according to the empathetic approach, the next steps are to continue investigating the remaining development objectives, and to develop, prototype, and refine interventions developed in response to the findings.

In a broader sense, this process has also opened a door to a new approach to supporting human progress in RAAN: policymaking driven by empathy, developed through collaboration and creativity. In pursuing a human-centered approach to creating the policy for children, policymakers and UNICEF Nicaragua developed a deeper connection to and understanding of the people they serve. It is hoped that this process can serve as a model and an inspiration for future policymaking endeavors.

annexes

Methodology Annex

The primary research informing the preceding analysis employed a design research methodology in order to inform and facilitate the development of a regional policy to protect and empower children in Nicaragua's Northern Atlantic Autonomous Region (RAAN). The research was framed to elicit understanding of experiences, constraints, and aspirations regarding the two chosen development objectives—supporting universal access to maternal and infant health, and elaborating a shared reimagined understanding of social values and discipline—and to facilitate the development of potential intervention ideas to consider as part of the policy implementation.

This investigation was undertaken by members of a multi-sector policy working group composed of representatives of RAAN's Regional Council and Government under the leadership of the Secretariat on Women, Family and Children, UNICEF Nicaragua, and Reboot. Using a human-centered approach to derive insights into the lived experiences of the people the policy will serve, the team sought to:

- Inform the regional policy framework with nuanced understanding of the human experiences regarding two development objectives, revealing the interplay of contextual factors, individual interests, needs, and constraints related to these objectives;
- Transfer knowledge and build capacity in the methods and applications of human-centered design and policymaking in order to support the stakeholders' ongoing and sustainable implementation of the resulting policy.

Preparatory research, including community consultations (described on the following page), key informant interviews, and desk research informed the primary research. Where data from the preparatory research has informed this report's analysis, it has been noted for the reader.

Community Consultations Informed the Primary Research

The design research framework and process were informed by a preparatory phase of community consultations conducted by trained policymakers and UNICEF staff. This phase was instrumental to the project outcomes in both eliciting key priorities for the policy to address and in providing policymakers and UNICEF with immersive training in human-centered research methods.

Consultations took place in 24 communities spread amongst seven territories in RAAN (Amasau, Karata, Matumback, Prinzu Auhya Un, Tuahka, Wangky Maya 1, and Wangky Maya 2), as well as Puerto Cabezas. Sites included semi-urban, rural, and remote communities. Approximately 350 community members were consulted in this preparatory phase.

Researchers used a variety of ethnographic, qualitative, and quantitative methods to understand community members' needs and priorities.

Topics addressed through the research included provision and quality of maternal and infant health and nutrition; resources and practices relevant to water and sanitation; issues of child protection, including civil registration, personhood, and intrafamilial violence; and education.

Focus group discussions (with six to 12 respondents at each discussion) and individual interviews elicited experiences and opinions on these topics. Respondents included a broad selection of stakeholders relevant to protection and development of children: parents, educators, health workers, community leaders, local officials, and children themselves. Children did not participate in interviews; their perspectives were engaged through a point-of-view photography exercise: one or more children in each community was given a camera and prompted to document factors in the community that would tell the story of their community's story to outsiders.

To the extent possible, interviewees reflected the social, ethnic, and cultural makeup of the community. Indigenous and Afro-descendent populations were most heavily represented in the sample, due both to the communities selected and existing research suggesting that those populations face the most severe development challenges.

Limitations influencing the outputs of this research included the short time available to conduct research in each community (less than one day each); recruitment of respondents through community leaders; and language and cultural barriers between respondents and researchers, which were mitigated through interpreters when necessary.

Data were analyzed using collaborative synthesis methods over a day-long workshop in Puerto Cabezas attended by the entire research team. Analysis was cognizant of the impact of the limitations and biasing factors outlined above.

Design Research Methods and Process

Design research emphasizes immersive and ethnographic research methods to understand how people interact with each other, with institutions, and with their larger environment. Combining ethnographic, journalistic, and systems-thinking approaches, design research helps reveal the causes, relationships, and human dimensions of complex environments and provides tools to incorporate this knowledge into the design of innovative, contextually tailored policy framework and interventions to support children.

Fieldwork for this investigation took place in Puerto Cabezas over three weeks spanning April and May 2013. Methods for this investigation were largely qualitative—including ethnographic interviews, participant observation, service trials, and photographic documentation—and were tailored to each development objective. Methods were similar for each, but research instruments were adapted to address specific questions of interest for each objective. (For a more detailed explanation of adaptations, see "Adaptations to target each development objective" below.)

Identical structured questionnaires captured demographic data for each respondent to enable researchers to remain sensitive to the impacts of social, ethnic, and cultural differences in responses.

Respondents

The research team engaged with 64 respondents through individual and small-group interviews. Respondents were recruited through purposive and snowball sampling, and included a broad selection of stakeholders relevant to protection and development of children: parents, educators, health workers, community leaders, local officials, and children themselves. 73 percent of respondents were female, reflecting the research focus on maternal and infant health, and the primary role of women in childrearing in RAAN.

Sampling sought to represent the ethnic and linguistic diversity present in Puerto Cabezas. Rather than structure a sample with ethnic demographics matching those of the city, similar proportions of respondents identifying with one of the three major ethnocultural groups present—Miskito, Creole, and Mestizo—were interviewed to enable policymakers to understand the influences of culture on communities' lived experiences and development challenges. Segmenting along such clearly-defined ethnic lines is somewhat difficult in RAAN, as many people identify with or are influenced by traditions of multiple groups (as illustrated by the proportion of respondents who either claimed mixed ethnic identity or declined to state it). However, given the centrality of cultural identity in RAAN society, as well as previous research suggesting that ethnicity and culture greatly impact children's health and development, probing this influence was important.

While there was some overlap between respondents, for the most part research processes and respondent pools were distinct for each objective.

Adaptations to Target Each Development Objective

Investigation into themes impacting both selected development objectives occurred simultaneously. The following adaptations were implemented to address the specific research questions framing investigation into each objective.

Investigation Into Provision of Maternal and Infant Health

Respondents for research into maternal and infant health included mothers of various levels of experience, health providers, members of mothers' informal support networks, policymakers, and other public servants working on issues of relevance. Mothers were primarily women and girls with infants or very young children who could speak to the current state of medical care. The age range of mothers was 15 to around 40. Perspectives of fathers were gathered through conversations with three fathers of young children. Research sites included hospitals, clinics, and private homes.

For the service trials, two members of the policy creation team spent a night at the casa materna: one bought medicine for a sick child, and the other provided child care for three single mothers. For the service intercepts, one team member spoke with women who were waiting to receive prenatal check ups at a public clinic, and another spoke with women who were receiving care in the maternity ward at the hospital.

Investigation Into Formation of Social Values and Discipline

Primary respondents included parents, children, school directors, teachers, and coaches. Considering the ethical issues regarding children in research, children were involved in the investigation through observations in schools, church and community spaces, after-school activities, and brief group interviews conducted with teachers or guardians present. Though they would not be the focus on the policy, adolescents, including youth gang members, were included as respondents to understand the pain points in the transition out of childhood. Research sites included schools (public, private, primary, and secondary), churches, sporting facilities, private homes, and other community spaces.

Two modified service trials were conducted: two policymakers spent a day each participating in classes as students at local secondary schools.

Research Team and Roles

Primary research was conducted by members of the policy working group, staff of UNICEF Nicaragua and Reboot, and three local researchers. The entire team took part in original research and co-design activities throughout the process, with Reboot and UNICEF Nicaragua coordinating and overseeing the overall engagement.

Reboot developed methods and tools for each component of the research, synthesis, and co-design process, and facilitated their implementation through training and documentation. Reboot provided remote and in-person training for members of the research team.

Analysis and Synthesis

Routine synthesis sessions were conducted among a subset of the research team throughout the duration of fieldwork. Two workshops convened the entire research team, including policymakers, UNICEF Nicaragaua staff, Reboot, and local researchers, to iterate on the research methods and synthesize findings. A variety of interactive exercises were used to analyze the findings, build empathy for community members, and explore potential interventions. The sessions were also used to identify research biases so the team could mitigate their impacts, to the extent possible, in interpretation of findings and policy design. The outputs from those workshops strongly inform the content of this report.

Research Challenges and Biases

Limited time available for research and infrastructure weaknesses impacting travel throughout the region led the team to focus research in Puerto Cabezas. While this offered an opportunity to reach the widest possible demographic respondent sample, the urban population of Puerto Cabezas differs in terms of average economic and education status, as well as ethnocultural composition, from populations in more rural parts of the region. Therefore, the findings and opportunities presented in the preceding analysis are most directly applicable to Puerto Cabezas.

About UNICEF Nicaragua

www.unicef.org.ni

The United Nations Children's Fund (UNICEF) promotes and contributes to creating a world that respects the rights of each and every child and adolescent. UNICEF works with the conviction that nurturing and caring for children are fundamental to human development and social progress.

UNICEF has been present in Nicaragua since 1950 and has since then been working with the various state and non-state actors to overcome the obstacles of poverty, violence, disease and discrimination that children face in their daily lives.

In the Northern Atlantic Autonomous Region of Nicaragua, the isolation to which the population is subjected has resulted in huge disparities. Social exclusion and vulnerability result in about 80% of Afro-descendent and indigenous children not having access to basic services. Given this reality, UNICEF Nicaragua supports national and regional authorities in efforts to break the cycle of intergenerational poverty and exclusion. UNICEF's current work in Nicaragua focuses mainly on the Atlantic Coast, as per the new Programme for Cooperation with the Government of Nicaragua (2013-2017).

As part of UNICEF, the Social Policy section is working as a laboratory for innovation in governance in order to open new gateways to promote the rights of children. The aim is to explore new alternatives and creative ways to achieve greater impact on the lives of the most vulnerable.

About Reboot

www.reboot.org

Reboot is a social impact firm dedicated to inclusive development and accountable governance. We help governments, foundations, and international organizations achieve their missions. We think of this as working toward a 21st century social contract.

The foundation of governing legitimacy and collective prosperity, a social contract is inclusive by definition. While the ability to access information, organize, and input has reshaped the scope of inclusivity in governance, few institutions have kept pace with these changes. Our social contract is due for renegotiation.

Reboot is working at the forefront of these transitions. We help our clients explore the origins of complex issues, design contextually appropriate interventions, bring these ideas to reality, and evaluate the results along the way. We approach the task with a set of underlying principles that cut across each engagement: immersion, collaboration, and iteration.

The possibilities for inclusive development and accountable governance—for a 21st century social contract—are growing. From supporting good governance in Nigeria to human development in Nicaragua to civic innovation in the United States and beyond, we are working to realize them.

This project represents a collaboration between Reboot and Policy Lab SAS.

Endnotes

1. Sandra Brunnegger, *From Conflict to Autonomy in Nicaragua: Lessons Learnt (*Minority Rights Group International, April 2007) 1. Accessed Mar 31, 2013, http://www2.ohchr.org/english/bodies/cescr/docs/info-ngos/mrginicaragua39wg.pdf

2. Suyapa Ortega Thomas, *Caracterización Socioeconomica de la Region Autonoma del Atlantico Norte (RAAN) de Nicaragua* (Fundación para el Desarollo Tecnologico Agropecuario y Forestal de Nicaragua (FUNICA), Fundación Ford, y Gobierno Regional, July 2009), 26, accessed Jun 10, 2013. http://www.funica.org.ni/docs/Caracterizacion%20socioeconomica%20de%20la%20RAAN%20VF%20ES.pdf

3. *Nicaragua Youth Assessment: Assessment of security and crime prevention activities, with focus on at risk youth on the Caribbean Coast of Nicaragua,* (USAID, July 2012), ix, accessed April 7, 2013, http://www.gem2.org/sites/default/files/Nicaragua%20Youth%20Assessment_13nov12.pdf

4. *Encuesta de Hogares sobre Medición del Nivel de Vida 2009* (Instituto Nacional de Informacion de Desarollo, 2009), accessed May 30, 2013, http://www.inide.gob.ni/bibliovirtual/publicacion/Informe%20EMNV%202009.pdf

5. *Encuesta Nacional de Demografia y Salud 2006-7 (Instituto Nacional de Informacion de Desarollo, 2008)*, 317 and 313, accessed May 30, 2013, http://apps.who.int/medicinedocs/documents/s18997es/s18997es.pdf

6. Government of Nicaragua, "Politica Nacional de Primera Infancia," 2011, accessed Mar 20, 2013, https://web.oas.org/childhood/ES/Lists/Recursos%20%20Planes%20Nacionales/Attachments/473/8.%20Pol%C3%ADtica%20Primera%20Infancia.pdf

7. *Perfil de Salud Materna ODM 5 Nicaragua* (Organización Panamerica de la Salud, 2010), 267, accessed Apr 10, 2013, https://www.paho.org/nic/index.php?option=com_docman&task=doc_details&gid=399&Itemid=235

8. Encuesta Nacional de Demografia y Salud, 186, 192.

9. Martin Patterson, Joy and George West, Daysi, "Modelo de Maternidad Culturalmente Apropriada para Mujeres Indigenas Miskitus y Sumu Mayangnas: Experiencia de construcción participativa de un Modelo de Atención Intercultural" (Health Poverty Action, 2008), accessed May 23, 2013, http://www.healthpovertyaction.org/wp-content/uploads/downloads/2012/08/Modelo-de-Maternidad-Segura.pdf

10. *Perfil de Salud Materna,* 47.

11. *Ibid*., 267.

12. While data showing the exact proportion of RAAN's households with children that are headed by single mothers was unavailable at time of writing, Nicaragua as a whole is notable for its high rate of single motherhood. In 2010, 31% of Nicaraguan households surveyed were found to be headed by women, the majority of them single. (*Encuesta de Hogares para Medir la Pobrezas en Nicaragua* (FIDEG, 2011) 61.)

13. *Nicaragua Youth Assessment*, 8.

Bibliography

Bragg, Michelle, et al. "No Child or Mother Left Behind; Implications for the US from Cuba's Maternity Homes," *Health Promotion Perspectives,* Vol. 2, no. 1 (2012): 9-19, accessed May 17, 2013, http://journals.tbzmed.ac.ir/PDF/HPP/Manuscript/HPP-2-9.pdf

Brunnegger, Sandra. *From Conflict to Autonomy in Nicaragua: Lessons Learnt.* Minority Rights Group International, April 2007. Accessed Mar 31, 2013, http://www2.ohchr.org/english/bodies/cescr/docs/info-ngos/mrginicaragua39wg.pdf

Bush, Shuan Carol Campbell. *The Intercultural Health Model of the North Autonomous Atlantic Region of Nicaragua: A model based on the rights and cosmovision of Afrodescendants, Indigenous and Mestizos people - A comparative study to enhance health with identity*, Oslo University College, Faculty of Social Science, 2011, accessed Mar 28, 2013, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CC8QFjAA&url=http%3A%2F%2Fwww.hioa.no%2Fnor%2Fcontent%2Fdownload%2F17631%2F190157%2Ffile%2FShaun%2520C.%2520Campbell%2520Bush%2520thesis.pdf&ei=ICHzUY_bNfj54AP8zoCQBQ&usg=AFQjCNEcWqjKguU3II-vhMFwhbQ0KAK6nA&bvm=bv.49784469,d.dmg

Child Friendly Schools - Case Study: Nicaragua, UNICEF, Education Section Programme Division, December 2009, accessed May 24, 2013, http://www.unicef.org/education/files/CFS_Nicaragua_Case_Study_2009_Dec.pdf

"Departments of Nicaragua," Statoids, accessed Jun 22, 2013, http://www.statoids.com/uni.html.

Durrant, Joan E. *Positive Discipline: What it is and how to do it*, Save the Children, 2007.

Duryea, Suzanne, Olgiati, Analia and Stone, Leslie. "The Under-Registration of Births in Latin America," Inter-American Development Bank, January 2006, accessed Jun 22, 2013, http://www.iadb.org/res/publications/pubfiles/pubwp-551.pdf.

Encuesta de Hogares para Medir la Pobrezas en Nicaragua, FIDEG, 2011, accessed May 30, 2013, http://www.fideg.org/investigaciones-y-publicaciones/96-resultados-de-la-encuesta-para-medir-la-pobreza-en-nicaragua-2011

Encuesta de Hogares sobre Medición del Nivel de Vida 2009, Instituto Nacional de Informacion de Desarollo, 2009, accessed May 30, 2013, http://www.inide.gob.ni/bibliovirtual/publicacion/Informe%20EMNV%202009.pdf

Encuesta Nacional de Demografia y Salud 2006-7, Instituto Nacional de Informacion de Desarollo, 2008, accessed May 30, 2013, http://apps.who.int/medicinedocs/documents/s18997es/s18997es.pdf

Informe Anual Externo 2011: Nicaragua, Save the Children, 2011, accessed Apr 18, 2013, http://resourcecentre.savethechildren.se/library/informe-anual-externo-2011-save-children-nicaragua

Lansdown, Gerison, *Benchmarking Progress in Adopting and Implementing Child Rights Programming,* Save the Children, March 2005, accessed Mar 30, 2013, http://www.un.org.kg/en/publications/document-database/article/Document%20Database/UN%20System%20in%20Kyrgyzstan/Human%20Rights%20and%20Human%20Rights%20Based%20Approach/133-Programming%20and%20Results%20Based%20Mangement/1821-benchmarking-progress-in-adopting-and-implementing-child-rights-programming-eng

Larson, Anne M. and Mendoza, Jadder Lewis. "Decentralisation and devolution in Nicaragua's North Atlantic Autonomous Region: natural resources and indigenous peoples' rights," *International Journal of the Commons,* Vol. 6, no. 2 (August 2012): 179-199, accessed Mar 13, 2013, http://www.thecommonsjournal.org/index.php/ijc/article/view/URN%3ANBN%3ANL%3AUI%3A10-1-113802

Lion, Katherine C., Prata, Ndola, and Stewart, Chris. "Adolescent Childbearing in Nicaragua: A Quantitative Assessment of Associated Factors," *International Perspectives on Sexual and Reproductive Health.* No. 35, vol. 2 (2009), accessed June 10, 2013, http://www.guttmacher.org/pubs/journals/3509109.html

Mairena, Eileen, et al. *Gender and forest's in Nicaragua's indigenous territories: From national policy to local practice,* Center for International Forestry Research, 2012, accessed Mar 18, 2013, http://www.cifor.org/publications/pdf_files/WPapers/WP95Larson.pdf

"Maternal Health and Early Childhood Development in Cuba: Second Report of the Subcommittee on Population Health of the Standing Senate Committee on Social Affairs, Science and Technology," Senate of Cuba, February 2008, accessed May 14, 2013, http://www.parl.gc.ca/Content/SEN/Committee/392/soci/rep/rep08feb08-e.pdf

Morris, Nat. "Cowboys vs Indians in Nicaragua's 'Wild East'," CESRAN International, Nov 10, 2012, accessed Jun 22, 2013, http://cesran.org/index.php?option=com_content&view=article&id=1522%3Acowboys-versus-indians-in-nicaraguas-wild-east&catid=61%3Amakale-ve-raporlar&Itemid=310&lang=en.

"Nicaragua," Education Policy and Data Center, accessed Jun 21, 2013, http://www.epdc.org/country/nicaragua/search?subnational=1678&year_from=2000&year_to=2013.

Nicaragua - Country Report, Global Initiative to End All Corporal Punishment of Children, September 2012, accessed May 12, 2013, http://www.endcorporalpunishment.org/pages/pdfs/states-reports/Nicaragua.pdf

"Nicaragua - Nutrition," The World Bank, accessed June 28, 2013, http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/LACEXT/EXTLACREGTOPHEANUTPOP/EXTLACREGTOPNUT/0,,contentMDK:21595331~pagePK:34004173~piPK:34003707~theSitePK:4160378,00.html.

Nicaragua: Food Security and Livelihoods Survey in the Autonomous Atlantic Regions, Vulnerability analysis and Mapping, World Food Program, July 2005, accessed Jun 22, 2013, http://home.wfp.org/stellent/groups/public/documents/ena/wfp073961.pdf.

Nicaragua Youth Assessment: Assessment of security and crime prevention activities, with focus on at risk youth on the Caribbean Coast of Nicaragua, USAID, July 2012, accessed April 7, 2013, http://www.gem2.org/sites/default/files/Nicaragua%20Youth%20Assessment_13nov12.pdf

Ortega Thomas, Suyapa. *Caracterizacion socioeconomica de la Region Autonoma del Atlantico Norte (RAAN) de Nicaragua,* Fundacion para el Desarollo Tecnologico Agropecuario y Forestal de Nicaragua (FUNICA), Fundacion Ford—Gobierno Regional, July 2009, accessed Jun 10, 2013. http://www.funica.org.ni/docs/Caracterizacion%20socioeconomica%20de%20la%20RAAN%20VF%20ES.pdf

Pinheiro, Paulo Sergio. "Report of the independent expert for the United Nations study on violence against children," United Nations General Assembly, A/61/299, August 29, 2006, accessed April 15, 2013, http://www.unicef.org/violencestudy/

Perfil de Salud Materna ODM 5 Nicaragua (Organización Panamerica de la Salud, 2010), accessed Apr 10, 2013, https://www.paho.org/nic/index.php?option=com_docman&task=doc_details&gid=399&Itemid=235

The Nicaraguan Health System: An overview of critical challenges and opportunities, PATH, Feb 2011, accessed May 15, 2013, http://www.path.org/publications/detail.php?i=1947

Treleaven, Emily, et al. *Rotated coverage and perceived barriers to vaccination in Tasba Pri, Nicaragua,* UNC School of Medicine, accessed Jun 22, 2013, http://www.urc-chs.com/uploads/newsitems/CSHIAPHARotaTeqPoster.pdf.

"UNICEF: 20% of Children Born in Nicaragua Not Registered," QNicaragua, April 8, 2013, accessed Jun 22, 2013, http://qnicaragua.com/2013/01/09/unicef-20-of-children-born-in-nicaragua-not-registered/.

"Unity is strength in Nicaragua," MDGF Achievement Fund, accessed Jun 19, 2013, http://www.mdgfund.org/story/unity-strength-nicaragua.

Violence Against Children in the Countries of Latin America: The problem, actions taken and challenges outstanding, United Nations Secretary-General's Study on Violence Against Children, June 2005.

Verdisco, Aimee, et al. "Integrated Childhood Development Services in Nicaragua," *Child Health and Education,* Vol. 1, no. 2 (2009): 82-89, accessed May 23, 2013, http://www.nyas.org/Events/Detail.aspx?cid=f0fa44fa-f8f4-4912-98c5-61331dbf831b

"World Directory of Minorities and Indigenous Peoples—Nicaragua: Overview," Minority Rights Group International, accessed Jun 21, 2013, http://www.refworld.org/cgi-bin/texis/vtx/rwmain?page=publisher&publisher=MRGI&type=&coi=NIC&docid=4954ce1bc&skip=0.

unicef

http://UNICEF.org.ni

REBOOT

www.reboot.org