



RESEARCH REPORT | 2016

Socio-cultural determinants
for the adoption of essential
family practices in **Madagascar**

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INDEX

List of figures and tables	4
Executive summary	5
Introduction	9
Context	11
Essential Family Practices (EFPs)	13
Analytical categories and concepts	15
Literature review	18
Key findings of literature review by sector	22
Health	
Nutrition	
WASH	
Education	
Child Protection	
Research Methods	27
Study Design (Quantitative)	27
Target population	
Sampling	
Team training and survey pre-test	
Ethical considerations	
Data collection	
Data entry	
Training of data entry operators	
Data capture, cleaning and tabulation of results	
Study Design (Qualitative)	32
Limitations of Research	34
General Findings	36
Findings by sector	46
Nutrition (EFPs 1, 2, 3)	
Health (EFPs 4, 5)	
Education (EFPs 6, 7)	
Child Protection (EFPs 8, 9)	
WASH (EFPs 10, 11, 12)	
C4D Opportunities	69
Future Research	81
ANNEX	82
Annex A: Project timeline and context	82
Annex B: Analytical categories and concepts	84
Annex C: References	89

FIGURES AND TABLES

FIGURE 1	
Study regions in Madagascar.....	10
FIGURE 2	
Individual decision/behaviour and direct/indirect communication impact.....	16
FIGURE 3	
MERCI memory card	73
FIGURE 4	
Vaccination calendar postcard.....	73
FIGURE 5	
Vaccination diploma	74
FIGURE 6	
Three strategies for communication for social and behavioural change.....	85
TABLE 1	
Preliminary sample sizes by region.....	29
TABLE 2	
Final sample sizes by region.....	29
TABLE 3	
Results of interviews with pregnant women and mothers of children under two years.....	31
TABLE 4	
Results of interviews with parents and caregivers of school-aged children (6 - 18).....	31
TABLE 5	
List of qualitative research sites	33
TABLE 6	
Key actors and sources of influence	39
TABLE 7 - 8 - 9	
Responses by region to questions on water safety	66

EXECUTIVE SUMMARY

Conducted in three regions of Madagascar in 2015, this study presents socio-cultural data related to 12 Essential Family Practices (EFPs).

Drawn from the programmatic areas of nutrition, health, education, protection and water/sanitation/hygiene (WASH), these practices can improve the health and well-being of women and children¹.

1. WHO/UNICEF (1998) “Vers de meilleures pratiques familiales et communautaires” (Towards better familial and community practices).

-
1. Pregnant and lactating mothers seek an appropriate nutrition.
 2. Mothers of children aged 0-6 months practice early initiation of breast-feeding and practice exclusive breast-feeding of their infants.
 3. Mothers of children aged 6-23 months provide varied and sufficient diet.
 4. Pregnant women seek 4 pre-natal consultations.
 5. Parents ensure vaccination of children aged 0/23 months according to the calendar.
 6. Parents and caretakers of children aged 6-11 years enroll children in primary school.
 7. Parents and caretakers of children aged 6-11 ensure that their children finish primary school.
 8. Parents/caretakers of children aged 10-18 years disallow children to marry before the age of 18
 9. Parents/caretakers of children aged 10-18 years adopt non-violent behaviours towards their children.
 10. Households wash their hands with soap at critical times.
 11. Households drink safe water by using an improved source or by effectively treating the water of non-improved sources.
 12. Households build and use latrines.

The results of this study serve as evidence to inform the design and implementation of communication for development (C4D) interventions that support programmatic efforts, including social mobilization and community participation for the survival, development, protection and education of children in Madagascar.

The consortium collaborating on this study were the University of Antananarivo and the National Institute for Statistics (INSTAT) in Madagascar, Ohio University (USA) and the School of Public Health, University of the Witwatersrand (South Africa). The study used mixed methods, with quantitative surveys conducted in 3240 households generating the bulk of the data, complemented by insights reached through a range of qualitative techniques including interviews, focus group discussions, transect walks and community mapping. Ethics clearance for the study was received in April 2015. Instrument finalization and training on collection and analysis methods for field teams spanned the months of May-July. Qualitative and quantitative data were collected in August- September 2015, with analysis and reporting from October-December 2015.

Some of the key findings indicate that while there are opportunities for C4D to help achieve program objectives related to the 12 EFPs, there are also limitations due to bottlenecks related to supply and service-delivery², which communication alone cannot address.

A summary of key findings from three program-related sections of the research illustrate both opportunities and limitations for C4D's contribution to promoting EFPs:

NUTRITION

Of the survey respondents who breastfeed, 53% report giving water, and 20% give sugared water a few hours after birth. Tambavy was also mentioned by 33% of respondents who reported giving liquids within the first three days. Reasons cited in the qualitative research for supplements were the perceived insufficiency or poor nutritional quality of the maternal milk, beliefs that can be countered through effective communication.

HEALTH

The study indicates that most mothers are well informed of the benefits of vaccinations, and want to have their children vaccinated. There are few significant socio-cultural barriers to vaccination, or strong anti-vaccination feelings. Of the two main barriers cited by parents, “distance to health centers” and “missing the time when vaccinations happen,” the latter provides strong potential for improvement via communication.

2. Terminology adapted from : UNICEF (2014) Formative Evaluation of UNICEF's Monitoring Results for Equity System (MoRES), p. 5

WASH

61% of survey respondents reported receiving information about potable or treated water. 98% of respondents agreed with the statement “I will use potable water because I want to keep my family in good health” but two thirds of respondents without access to potable water *did not treat* the water they collected. 68% reported that water from the river is potable and 74% that water from a spring is potable. The most important sources of information were community agents (49%), health agents (48%) and radio (40%). These forms of communication could be harnessed to raise awareness about what types of water are potable and how to treat unclean water.

For areas where the research suggests that C4D may be in a position to contribute, as with some of the data excerpts above, intervention design ideas have been proposed at the end of this report (see nine opportunities on pp. 69-80).

INTRODUCTION

This report describes and presents the key findings of a 2015 UNICEF-supported research study, conducted in three regions of Madagascar, on the socio-cultural determinants of 12 Essential Family Practices (EFPs). The purpose of the study is to provide an evidence base for programme interventions by UNICEF, the government of Madagascar and country partners, including communication for development (C4D) strategies. A more thorough understanding of barriers and motivators, including beliefs and cultural practices, key influencers and communication networks can lead to better informed and targeted interventions that contribute to measurable social and behavioural change.

The methodology for the quantitative and qualitative study was developed by a national and international research consortium, with guidance from UNICEF, a national steering committee and an international reference group. The consortium partners are:

Université d’Antananarivo (UA), Faculté de Droit, d’Economie, de Gestion et de Sociologie (DEGS), Département de Sociologie, and Faculté des Lettres et des Sciences Humaines (FLSH), par le CERCOM du Département Interdisciplinaire de la Formation Professionnelle (DIFP)

National Institute for Statistics (INSTAT), Madagascar

Ohio University, Communication and Development Studies

University of the Witwatersrand, School of Public Health

The study, building on data gathered in previous quantitative and qualitative research, was conducted in three regions—Analanjirifo in the northeast, and Atsimo Andrefana and Anosy in the South³. These regions are part of a larger group of seven selected based on their vulnerability in social sectors and the presence of various UNICEF programmes. Research may be conducted in four other regions at a later date.

3. As many Madagascar scholars have noted, the use of the term “the South” is problematic. Within each of the regions (including those in this study), there are significant geographic and economic distinctions between urban, coastal and rural areas, between research-rich communities, e.g. mining towns, and those that depend on subsistence agriculture, fishing or zebu-herding. Some areas are administered by local authorities; in others, political and administrative authority is mainly in the hands of traditional leaders. There are differences in religious beliefs and practices, traditional rituals, and dialects. For research to best guide programme interventions, disaggregation of data at the regional (Anosy and Atsimo Andrefana) and geographic tier levels is recommended.

The project timeline (for planning, development of methodology and questionnaires, research protocols and approvals, workshops, data collection, and data analysis) is outlined in Annex A.

This report highlights key research findings and recommendations. For reasons of space, it does not include the research instruments developed, such as the questionnaires and guides for focus group discussions and key informant interviews, descriptive statistical tables and summaries of qualitative research conducted in communities. These can be found at the project website, <https://madaresearch.wikispaces.com>

Fig 1. Study regions in Madagascar (highlighted)



CONTEXT

With worsening economic conditions and political instability, social indicators relating to the rights of children in Madagascar in almost every sector have been declining in recent years. Over 90% of households live on less than \$2 per day and over a third are classified as food insecure; one in four women of reproductive age suffers from malnutrition. In the health sector, most women seek ante-natal care (ANC); however, there has been a decline in the number who complete the recommended four ANC visits, with the rate lowest in the two southern regions. The maternal mortality rate is high at 478 per 100,000 live births, with over a third of these resulting from teenage pregnancies. Most children receive some immunizations, but the number who complete the full vaccination schedule has also been declining, particularly in the South and in rural areas.

Only a little over one fourth of households nationally have access to safe water and about half use treated water. The primary barriers to accessing safe water are availability and a preference to drink water directly from the source. Handwashing practice is low with a limited number of households having soap, water supply or a designated place for handwashing. There is low awareness of the relationship between systematic handwashing and health/illness. Nationally less than three out of 100 households use improved sanitation facilities. Open defecation is widely practiced. Barriers to latrine use include the cost of building toilets, poor maintenance, cultural taboos to using and sharing toilets and low risk perception of open defecation or improper disposal of child feces.

Poverty, food insecurity and daily routines impact the nutritional status of pregnant women, mothers and children. Although almost all children are breastfed, there has been a decline in the early initiation of breastfeeding. Exclusive breastfeeding rapidly decreases by 4-5 months when nearly 70% of infants receive other fluids and complementary foods. Among children aged six months to two years, less than one quarter (22%) receive an adequate diet (according to UNICEF and WHO guidelines)—that is, both the minimum meal frequency and at least four separate food groups (dietary diversity).

Although education is compulsory from the age of six and is a national priority, Madagascar is not on track to achieving universal primary education. Approximately 1.5 million children of school-going age are currently out of school and only three out of every 10 who begin primary school complete the cycle. Factors that contribute to lower school enrolment and retention include the poor quality of public education and the need for children to engage in income generating activities to support families.

Despite opposition from some parents, child marriage remains prevalent in Madagascar, with close to half the female population aged 15-49 married before 18 years, the rate being highest in the South. Early marriage often results in teenage pregnancies and contributes to maternal mortality and morbidity. Violence against children is a major concern and, as in most other countries, is under-reported and tolerated, with most caregivers considering physical punishment necessary to raise children properly. Four out of five children aged 2-14 have experienced at least one form of violent discipline. Sexual exploitation of children including prostitution and sexual tourism has increased in recent years. The low status of children and women, normative acceptance of violence and the pervasive impunity of perpetrators allows violence against children and women to persist. These trends have been exacerbated by structural factors. Deteriorating economic conditions, both globally and nationally, have increased financial pressures on both families and individuals. Since 2005-2006, and particularly since the 2009 political crisis, government social sector capacity has declined, resulting in reduced services and lax law enforcement.

ESSENTIAL FAMILY PRACTICES

Based on these social indicators, UNICEF developed 12 Essential Family Practices (EFPs)⁴. They correspond to the programmatic objectives of the Health, Nutrition, Education, Child Protection and WASH sections of UNICEF Madagascar. The 12 EFPs are grouped under five “section umbrellas.”⁵

1 NUTRITION

Pregnant and lactating mothers seek an appropriate nutrition (EFP1-N)

Mothers of children aged 0-6 months practice early initiation of breast-feeding and practice exclusive breast-feeding of their infants (EFP2-N)

Mothers of children aged 6-23 months provide varied and sufficient diet (EFP3-N)

2 HEALTH

Pregnant women seek 4 pre-natal consultations (EFP4-H)

Mothers of children aged 0-23 months ensure their children are vaccinated according to the calendar (EFP5-H)

4. UNICEF concept note (2015), “Study of socio-cultural determinants for the adoption of key family practices in the areas of intervention of UNICEF Madagascar,” p. 1.

5. We propose a slight change to the numbering of the EFPs so that practices for nutrition are grouped together under one “section umbrella.”

3 EDUCATION

Parents and caretakers of children aged 6-11 years enroll children in primary school (EFP6-E).

Parents and caretakers of children aged 6-11 ensure that their children finish primary school (EFP7-E)

4 CHILD PROTECTION

Parents /caretakers of children aged 10-18 years disallow children to marry before the age of 18 (EFP8-P)

Parents /caretakers of children aged 10-18 years adopt non-violent behaviours towards their children (EFP9-P)

5 WASH

Households wash their hands with soap at critical times (EFP10-W)

Households drink safe water by using an improved source or by effectively treating the water of non-improved sources (EFP11-W)

Households build and use latrines (EFP12-W)

ANALYTICAL CATEGORIES AND CONCEPTS

To establish a common vocabulary for this report, we use a set of analytical categories and concepts that guide, together with the research data, the C4D recommendations. The terminology is introduced here and the concepts developed in Annex B.

SUPPLY AND DEMAND-SIDE DETERMINANTS

Constraints and bottlenecks to the uptake of a given behaviour or service can stem from “demand-side” determinants such as the lack of knowledge or motivation on the part of a community member, and can also be the result of a “supply-side” factor such as poor service, absence of supplies (e.g. vaccines or water purifiers) or lack of infrastructure (e.g. a health center). UNICEF’s Monitoring for Results Equity System (MoRES)⁶ provides a framework for considering the range of determinants that can enable or constrain behaviour and social change. Areas for potential bottlenecks range from 1) enabling environment (social norms, legislation/policy/political context, etc.), 2) supply, 3) quality (of service), and 4) demand. C4D can be employed in three of the four determinant areas, through advocacy, social mobilization and individual behaviour change communication. Only the area of “supply” is largely immune to communication influence.

INDIVIDUAL DECISIONS/BEHAVIOURS AND SOCIAL NORMS

When considering how to promote a given EFP, it is important to determine whether the behaviour, action or decision is within the control of the individual, or whether the action or behaviour is highly influenced by social norms. We define social norms as a system that “specifies what is acceptable and what is not in a society or group...often meant to represent a solution to the problem of attaining and maintaining social order.”⁷ A deeply entrenched social norm may necessitate long-duration communication formats while a one-time behaviour such as

6. Formative Evaluation, UNICEF’s Monitoring Results for Equity System MoRES: From evidence to equity? (2014), p. 6

7. Stanford Encyclopedia of Philosophy, Social Norms, Section 1: Introduction

birth registration might be addressed through short-duration information-only approaches. There are thus two key questions to ask about each EFP:

Is the behaviour within the control of the individual or family, or is it a social norm?

Can the behaviour be directly impacted or influenced by communication alone, or are there other barriers?

This is illustrated by Table 1 which plots the EFPs along two axes: 1) – vertical axis: individual (or family-level) decisions and/or behaviours, or social norms, which involve the perceived opinion of others in the community; and 2) horizontal axis: how likely the EFP is to be *directly* impacted by communication (on its own), or only *indirectly* arriving at impact, because an additional material resource or factor (like geography) will affect the potential impact of a given intervention. EFPs that are both individually controlled AND directly influence-able by communication are the “lowest hanging fruit” for potential C4D impact. Tougher candidates for C4D influence are EFPs that are entrenched social norms, and/or require additional material resources (such as soap, toilet paper or supplemental food) or have material/geographic barriers (such as access to schools, or the existence of a health centre).

Fig 2. Individual decision/behaviour and direct/indirect communication impact

		Individual decision/behavior				
Direct communication impact		EFP2-N Exclusive Breast Feeding		EFP1-N appropriate nutrition for mothers EFP3-N sufficient/varied diet 6-23 mo children EFP4-H pregnant women seek 4 CPNs EFP5-H vaccination children 0-23 months EFP6-E parents enroll 6-11 yr. children in school EFP7-E 6-11 yr. children finish primary school EFP10-W handwashing with soap, critical times EFP11-W drink safe water, treat unsafe water EFP12-W households build and uses latrines		Indirect communication impact (requires material resources)
		EFP8-P parents of 10-18 yrs. children disallow marriage for children under 18 EFP9-P parents of 10-18 yrs. children adopt non-violent behavior		EFP1-N appropriate nutrition for mother EFP3-N sufficient/varied diet 6-23 mo children		
				Social norm		

EFP CATEGORIES

Based on the analysis presented above, the team placed each of the 12 EFPs into one of three categories

Category 1. Individual or family-level choice; C4D can directly influence (top left quadrant).

Category 2. Social norm; C4D on its own can influence, but challenges remain, since social norms often take more time and intensity, in terms of communication, to affect change (bottom left quadrant).

Category 3. C4D can only indirectly influence. There is a need for additional material resources to successfully engage in these EFPs (top right quadrant).

Further details on the analytical categories and their relationship to potential C4D interventions may be found in Annex B.

LITERATURE REVIEW

The literature review, presented (in French and English versions) at the December 2014 research methodology seminar, provided a synthesis of available research, identifying prevalence data and trends, barriers and motivators, and areas for further research for each of the EFPs. Given the wide range of EFPs, summary data sheets were compiled by sector allowing the closely related practices to be analyzed and presented together. See <https://madaresearch.wikispaces.com/Rapports>

The review was guided by the following questions:

What do the data indicate about the 12 EFPs nationally and in the three regions?

What do the data indicate in terms of knowledge, attitudes, and behaviours as they relate to the EFPs?

What do the data indicate in terms of social norms, barriers and motivators in relation to the EFPs?

What do the data indicate regarding current communication practices and key influencers on the decision makers?

What do the data indicate regarding the access and use of media and information communication technologies?

The literature review included national survey data, UNICEF country programme documents, an initial desk review conducted by the University of Antananarivo and qualitative and recent anthropological studies. These data sources were complemented by peer-reviewed journal articles identified through a database search process using specific key words and inclusion criteria. The search was conducted using three main search engines: an academic one (EBSCO), one oriented to C4D and communication for social change (The Communication Initiative, CI), and a general one (Google Scholar). In summary, the review methodology consisted of:

Review of existing large-scale data including the MICS (Multiple Indicators Cluster Survey), EPM 2010 (Periodic Households Survey), EDS 2008-2009 (Demographic and Health Survey), and MDG 2013 (Millennium Development Goals);

Review of anthropological study undertaken in southern Madagascar in 2011 (Le Sud: Cimetièrè des Projets?) and qualitative research on socio-cultural practices and actors of influence from 2013 (UNICEF Mapping Study), and other studies related to socio/cultural organizations, population behaviours, and child rights;

A thorough search of databases for peer-reviewed journal articles and published reports from national and international development agencies or research institutions;

Summary of the existing data in order to identify information gaps and potential areas for further research.

The majority of research studies conducted in Madagascar over the last quarter-century have been anthropological or ethnographic in their methodology. This is not surprising. Given the country's relative geographic isolation and cultural diversity, it offers many opportunities for research focused on traditional beliefs and practices. Quantitative studies by international and donor organizations have produced demographic data, but have not asked *why* people do or do not adopt certain attitudes and behaviours. This study is intended to help fill this gap.

Assumptions about commonality of behaviours within and across regions are easily and often made by development professionals and, sometimes, researchers. Without concrete data on the reasons or motivations for attitudes and behaviours, it is tempting to rely on existing anthropological studies which, by their disciplinary nature, tend to emphasize the role of traditional practices, religion, cultural taboos, and so on. That's what anthropologists study, and so it's what they report. We are not seeking here to debunk these studies, but simply to say that an attitude or behaviour identified as prevalent within a certain community or ethnic group should not be assumed to be widely shared, even at a district level.

Most anthropologists say that their studies are descriptive of a group of people in a particular place at a particular time, and that to generalize from their research, either to other communities or across time, is problematic. Yet, such generalizations occur. A UNICEF-sponsored report "Le Sud: Cimetièrè des Projets?"⁸ makes broad statements about religious beliefs, social hierarchies, marriage and communication networks, among other topics, implying that such attitudes and practices are, if not universal, then at least common across all southern regions. Such conclusions are no doubt valid for some individuals or communities, but can we apply them to all of southern Madagascar?⁹ The two southern regions in the study—Atsimo Andrefana and Anosy—are markedly different in history and cultural practices, and within these regions, ethnicity and culture are just two of the factors that may shape attitudes and behaviours.

8. Preliminary report, "Le Sud: Cimetièrè des Projets?" (no author or date listed)

9. Bayer and Gostin (and others) have noted the potential stigmatizing effects in public health and communication interventions when specific "at risk" groups are "singled out" in communication campaigns. Bayer, R. and Gostin, L. (2007). *Public Health Ethics: Theory, Policy, and Practice*, Oxford

There is no broad agreement about how to define ethnic groups in Madagascar. Although government documents and maps divide the island neatly into 18 ethnic regions, ethnicity is not measured by any single criterion. Some groups are categorized on the basis of racial origin, others on primary economic activity, and others on their historical opposition to powerful kingdoms. The one constant factor in Madagascar's history is migration—both from outside and within the country, as a result of conflict or economic pressures. The result is that many communities, including several in this study such as Mahavatse and Sakaraha, are composed of people from various regions of the island. Scholars such as Richard Marcus have argued that geographic, rather than cultural distinctions, are the drivers of attitudes and behaviors; for example, a Merina living in Analanjirifo and dependent on lychee or cloves production is more likely to make decisions similar to those of Betsimisaraka neighbors than to those of highland Merina; similarly, a Betsimisaraka living on the coast of Atsimo Andrefana will follow the practices of the Vezo, an ethnic group defined almost entirely by economic activity (fishing).

This study classified each region into four tiers, based primarily on geographical location (urban, coastal, sub-coastal and interior). Even within these tiers there are significant economic disparities, particularly between resource-rich communities where mining has boosted the secondary economy, and resource-poor communities that continue to rely primarily on subsistence agriculture or fishing. In general, more goods and services are available in research-rich areas; for example, private schools have been established in areas where there is comparatively greater wealth.

Just as problematic are statements, most often based on the views of local government officials and religious leaders, that characterize a region or district in certain ways. One study analyzed for the literature review featured sweeping statements about regions and their populations. In Analanjirifo, people were described as conservative, clinging to traditional practices, concerned only with their basic daily needs and not willing to exert extra effort to improve their lives, incapable of participating in their own development, waiting for the welfare state to solve all their problems, and motivated only by material and/or financial gain.¹⁰ Such statements are based on limited data—views expressed in interviews and focus group discussions—and risk stigmatizing an entire region, portraying its population as either victims of environment and traditions or as incapable of becoming partners in development.

10. «Culture du moindre effort/manque de motivation et de volonté » Mapping de la région Analanjirifo (2013), p. 4

Although such generalizations are still current in some government and development circles, they have been rejected by most scholars in the social sciences and humanities as “false homogeneous categories, static, deterministic and discriminatory.”¹¹ Communication approaches that position cultural beliefs as resources rather than barriers¹² can help tailor interventions to local contexts, with community participation, in ways that do not run the risk of stigmatizing groups.

11. Quoted in Livian, Y.-F. (2011), « Pour en finir avec Hofstede. Renouveler les recherches en management interculturel », Communication à la première conférence annuelle Atlas/Afmi, *Les défis du management international à l'aube du XXIe siècle*, ESCP Europe et Université Paris Dauphine, Paris, 26-27 Mai, http://hal.archives-ouvertes.fr/docs/00/64/35/93/PDF/Pour_en_finir_avec_Hofstede.pdf Also, Cabedoche, B., “Education for intercultural journalism for excellence and reference centers in Africa. An academic contribution to political and critical reflection of UNESCO,” pp. 163-192, in Racha Mezrioui, Zainab Touati (Eds.), *Media and digital technologies. identity constructions and interculturalities*, Tunis and Paris: L’Harmattan, 2016 (Coll. Socio-anthropology of the Mediterranean worlds.)

12. Airhihenbuwa, C. (1995). *Health and Culture: Beyond the Western Paradigm*. Sage Publications

KEY FINDINGS OF LITERATURE REVIEW BY SECTOR

HEALTH

The EDS 2009 reports that 55% of children aged 1-12 months are fully vaccinated as per the recommended schedule. In the 12-23 months age group, nearly two-thirds of children (62 %) received all EPI vaccines, i.e., one dose of BCG, three doses of DPT, three doses of polio and one dose of measles. Data reflects higher coverage in urban areas (81%) compared to rural areas (60%). The MICS 2012, conducted in four regions in the South report that among children aged 12-23 months, 64% were vaccinated against TB and under 50% for polio, DPT and measles. The EDS and MICS rates are higher than those reported in the UNICEF Situation Analysis which indicates a decline in the percentage of children fully vaccinated from 47% in 2003 to 38% in 2012 (SitAn 2014). The discrepancy may be partly explained by the age group studied.

Almost nine out of 10 women in Madagascar receive antenatal care (ANC) by trained health personnel; however there has been a sharp decline in the number who complete the recommended four ANC visits. Less than half of pregnant women complete all four ANC visits.

Maternal mortality is high at 478 per 100,000 live births and over a third of these result from teenage pregnancies (UNICEF CPD, 2014). Access to and quality of health care services remain low. This is further compounded by socio-cultural barriers and a preference for traditional healers and remedies.

NUTRITION

Maternal nutrition and dietary practices have intergenerational consequences, affecting both mother and child. Widespread poverty and low food security pose serious barriers to achieving adequate and diverse diets. Over 90% of households live on less than \$2 per day and over one third are classified as food insecure (ENSOMD 2012). Furthermore, 27% of women of reproductive age suffer from malnutrition (SitAn 2014).

Breastfeeding is near universal in Madagascar with almost all children breastfed (98%). Around two-thirds of the children (66%) are breastfed within one hour of birth. Data indicate a decline in early initiation of breastfeeding from 72% in 2008 to 66% in 2013 (SitAn 2014). According to the DHS 2009, about half of children under six months (51%) are exclusively breastfed. Exclusive breastfeeding is higher in the first two months and then rapidly decreases; at 4-5 months almost 70% of infants are receiving other fluids and complementary foods. The median duration of breastfeeding is estimated at 21.9 months and that of exclusive breastfeeding 2.3 months (DHS 2009). There is high variability in breastfeeding rates depending on the place of residence. The mother's educational level and births attended by a health provider or at a health facility appear to have a positive influence on

breastfeeding (EDS, 2009). The rates are lower in the South where 26.6 % practice exclusive breastfeeding for less than six months and 45.5% practice early initiation (MICS 2012).

In Madagascar, the National Nutrition Policy (2004) follows the WHO and UNICEF guidelines for infant and young child feeding (IYCF) which recommends exclusive breastfeeding for the first six months of life followed by the introduction of complementary foods rich in nutrients with continued breastfeeding until the age of two. According to the EDS (2009), 87% of infants in the 6-23 month age group are fed according to the recommendations. Furthermore, among children 6-35 months, 79% had consumed foods rich in vitamin A and 46% iron-rich foods. Food consumption increases with age (from 53% at 6-8 months to 81% at 12-17-months and 87% at 24-35 months); however, non-breastfed children (86%) are fed more frequently than breastfed children (75 %). For instance, 58% of breastfed children consumed fruits and vegetables rich in vitamin A, compared to 63% of those not breastfed, and 41 % of breastfed children consumed foods such as meat, fish, poultry and eggs compared to 53% of non-breastfed. A very small percentage of children consume cheese, yogurt or other dairy products irrespective of whether they are breastfed or not.

According to the MICS, among children aged 6 to 23 months, regardless of the status of breastfeeding, over one third received at least four different food groups (38%) and more than half (68%) received the minimum meal frequency. Less than a quarter (22%) of the children received adequate food, which is defined as receiving both the minimum number of calories per day and food from at least four separate food groups (dietary diversity).

WASH

A little over one fourth of households nationally have access to an improved source of water and almost half (49%) use treated water (EDS, 2009). In the South access is considerably lower at 26% and less than a fifth of households use treated water (16.3%) (MICS, 2013). The primary barriers to accessing safe water are availability and the preference to drink water directly from the source. Boiling water is not a common practice. According to the SitAn, 57% of people who have access to water system supply still drink surface water and only 28% of public primary schools have safe drinking water points (24% in rural areas vs. 57% in urban areas). Geographical and income- based disparities exist, with lower access in rural areas and among lower income groups.

The systematic and repetitive practice of handwashing is low with a limited number of households having soap, water supply or a designated place for handwashing. Indicators of handwashing at critical times are not included in the surveys reviewed. Data suggests low awareness of the relationship between handwashing and health/illness.

Nationally less than three out of 100 households use improved sanitation facilities (EDS, 2009). The Joint Monitoring Programme (JMP 2013) reports an increase in access to sanitation from 8% to 14% from 1990 to 2011. Access is higher in urban than in rural areas. 69% of people lacking access to improved sanitation live in rural areas, as are 84% of people who defecate in the open (JMP 2013). Open defecation is widely practiced, with 39% of the population, roughly 8.4 million people, defecating in the open (SitAn, 2014). In the South less than 2% use improved sanitation facilities and only about 4% practice hygienic disposal of child feces (MICS 2012). Latrine use is deterred by the cost of building toilets, the cost and reluctance to use toilet paper and other artificial products, poor maintenance, cultural taboos to using and sharing toilets among family members, and low risk perception of open defecation or improper disposal of child feces.

EDUCATION

Although education is compulsory from the age of six and is a national priority, Madagascar is no longer on track to achieving universal primary education (MDG 2). According to the MDG Survey 2012, the net primary enrolment rate is 69%, a considerable decline from 83% in 2005. Approximately 1.5 million children of school-going age are currently out of school and only three out of every 10 children who begin primary school complete the cycle (UNICEF CPD, 2014). More than three-quarters (78%) of the population have completed primary schooling, and about one third (31%) have completed secondary schooling (EDS 2009). There is gender parity in primary schooling with the ratio of girls being slightly higher than boys. Income levels and place of residence impact education indicators.

Factors that contribute to lower school enrolment and retention include poor quality of public education, low perception of the value of education among parents, the need for children to engage in income generating activities to support families, and language difficulties (the use of Malagasy as an official working language, French, local dialects and the French-Malagasy mix).

CHILD PROTECTION

Child marriage is prevalent in Madagascar, with close to half the female population aged 15-49 married before the age of 18, the number being higher in the South (65%). About 12% of the female population report marriage before 15 years of age. Early marriage often results in teenage pregnancies and contributes to maternal mortality and morbidity. As of 2012, 37% of women aged 15 to 19 years reported having started their reproductive life (UNICEF CPD). Males tend to marry later than females. Especially in rural areas, parents arrange marriages for their children, often at a very early age and sometimes even at birth. Early marriage can result in economic gain, preserve kinship ties or perpetuate the family lineage, or even build alliances between villages.

Violence against children is a major concern and, as in most other countries, is under-reported and tolerated. The MICS reports that over 80% of children (2-14 years) have experienced at least one form of violent discipline. Twenty percent of children were subjected to severe physical punishment and 64% to physical punishment. The majority of caregivers (71%) consider physical punishment necessary to raise children properly. According to the MDG survey 2013, among adolescent girls (aged 15 to 19), 14 % experienced sexual violence and 15% experienced physical violence. The Special Rapporteur on the Sale of Children, Child Prostitution and Child Pornography reported increases in sexual exploitation of children including prostitution and sexual tourism since the onset of Madagascar's political crisis (CPD, 2014).

Such data need to be treated with caution because definitions of “violence,” “discipline: and “sexual exploitation” can be subjective, and thus less than reliable as a basis for strategies and programme interventions. For researchers, it is difficult to separate global trends in human trafficking and sexual exploitation from national or indigenous practices. Although economic pressures and lack of law enforcement may be factors on both levels, the involuntary servitude of minors, sometimes given legitimacy through the *dina* (social contract), has long been a socio-cultural coping strategy in Madagascar.

Over a quarter of women (aged 15-49) consider it justifiable for a man to beat his wife/partner if she neglects the children (EDS, 2009). This attitude towards domestic violence is slightly more pronounced among women in the capital city, Antananarivo (25% compared to 19% in rural areas) and among those under 30 (20 % compared to 17% among ages 45-49). According to the MICS, 37% of women consider it justifiable for their husband/partner to beat them for a reason (such as neglecting the children, arguing with their husband or refusing sex). Surprisingly, this attitude is more prevalent among women in urban areas, those with at least secondary education and belonging to the highest wealth quintile. The low status of children and women, normative acceptance of violence and the pervasive impunity of perpetrators allows violence against children and women to persist.

METHODOLOGY

RESEARCH METHODS

RESEARCH QUESTIONS

The study addresses research questions (RQs):

RQ1

What are the socio-cultural determinants of attitudes and behaviours relating to each of the EFPs, and how do they differ by region, strata, gender, education level and other socio-demographic characteristics? What are the barriers, bottlenecks and opportunities?

RQ2

Who are the key actors and/or sources of influence and networks in relation to the EFPs?

RQ3

Which communication channels/media are available and trusted in relation to the EFPs?

STUDY DESIGN

The mixed methods study consisted of quantitative surveys, with socio-demographic questions, conducted in randomly selected communities in the three regions, corresponding to geographic strata, by the National Institute for Statistics (INSTAT). The University of Antananarivo (UA) conducted qualitative research in 12 communities (four communities per region).

QUANTITATIVE DESIGN

INSTAT, which has partnered with UNICEF on previous research, was selected to implement the quantitative research study.

TARGET POPULATION

There were two respondent groups:

Pregnant women and mothers of children under two--questionnaire on maternal and infant health and nutrition (EFPs 1, 2, 3, 4 and 5);

Parents and caregivers of school-aged children (6 – 18)—questionnaire on education and child protection (EFPs 6, 7, 8 and 9).

Both questionnaires included a preliminary section on socio-demographic characteristics, type of dwelling, the economic status of the family, media use, and water, hygiene and sanitation (EFPs 10, 11 and 12).

SAMPLING

To assure representivity at the regional level, each region was divided into strata based on geographic criteria: urban, coastal, sub-coastal, and interior. Enumerator Areas (EAs) from the preliminary mapping of the third General Census of Population and Housing (RGPH3) of Madagascar provided the basis for the quantitative survey. Because the EAs were defined in 2009 and changes could have occurred in terms of the number of households and borders, an update was conducted before data collection began. EAs were randomly selected from each stratum based on population size/number of households. The calculated sample size and the expectation of non-responses yielded a total of 115 EAs across the three regions.

Determining the sample size depends on several parameters, including: the degree of accuracy, the required level of representivity, and budget and logistical constraints. On the basis of these parameters, the minimum size of the sample required for each target area of the study was adjusted. The most commonly used formula for calculating the sample size in the context of a quantitative survey by cluster is as follows:

$$n = \frac{z^2 * p (1-p) * g}{m^2}$$

where n: sample size; **z:** confidence level (1.96 corresponds to a 95% confidence interval); **p:** expected prevalence; **g:** group effect; **m:** margin of error desired (set at 0.05).

Databases from previous surveys allowed INSTAT to calculate the sample size from this formula. The vaccination rate indicator among children aged 12-23 months was used to deduce the sample size by region.

Based on the calculations, the following sample sizes for each region were determined.

Table 1: Preliminary sample sizes (by region)

Regions	Households	Pregnant Women and Mothers of Children < 2	Parents and Caregivers of School-Aged Children
ANALANJIROFO	1 068	534	534
ATSIMO ANDREFANA	1 132	566	566
ANOSY	1 058	529	529
TOTAL	3 258	1629	1629

As indicated above, each region was divided into four strata. Within each stratum, the EAs were randomly selected, as were the households within each EA.

The sample was stratified and drawn in two stages. The first stage corresponded to the EAs, which were defined in the preliminary mapping (RGPH3), as described above. It is worth noting that in each stratum for the sample, the number of EAs drawn was dependent on the total number of EAs in the strata. That is to say that the sampling of EAs was proportional to the number of EAs, rather than the number of households or the population size.

For the second stage of sampling, 15 households among all eligible households were randomly and systematically sampled from each EA. In order to be able to conduct this second degree of sampling, all households in each EA were enumerated prior to the sampling.

This enumeration process yielded two lists: one containing households with pregnant women/mothers of children less than 2 years, and one with parents and caregivers of children aged 6 to 18. From each list, 15 households were chosen at random. In addition, it was verified that each list contained different households. If that was not the case, then the geographically closest enumerated household to the sampled household was used to replace the duplicate. This was the definitive sample list for each EA taken to the field by the team to locate the sampled households. The actual size of the sample is as follows:

Table 2: Final sample sizes by region

Regions	Households	Pregnant Women and Mothers of Children < 2	Parents and Caregivers of School-Aged Children
ANALANJIROFO	1020	510	510
ATSIMO ANDREFANA	1170	585	585
ANOSY	1050	525	525
TOTAL	3240	1620	1620

TEAM TRAINING AND SURVEY PRE-TEST

A five-day workshop was held at Fenerive Est in Analanjirofo in May 2015 for data collection team leaders, UNICEF staff and members of the research consortium. Final changes were made to the French-language versions of the questionnaires and they were then translated into Malagasy. The workshop reviewed interviewing techniques and procedures for completing questionnaires and logging households visited. After the workshop, the questionnaires were pre-tested in communities near Fenerive Est and final adjustments made. Each data collection team consisted of a team leader, a controller and two researchers. The leader was responsible for training team members.

ETHICAL CONSIDERATIONS

In April 2015, the entire study protocol and the research instruments and tools were approved by the Human Subjects Research Board (HSRB) at Metropolitan State University, a subcontractor to the international team. Principal researchers were trained in ethical conduct regarding the inclusion of human subjects in research prior to starting the project.

DATA COLLECTION

Data collection began on August 9, 2015, and ended on September 22. As indicated above, each region was divided into four strata. Surveys were administered to individuals (not to households), and no substitution was permitted (i.e., there was only one survey administered per household and the respondent was chosen a priori by the enumerator team). A protocol for informed consent was followed. The data collection was supervised and monitored by the national technical team.

Table 3. Results of interviews with pregnant women and mothers of children under two years: number of households selected, occupied, and interviews successfully completed

Results	Urban	Coastal	Sub-coastal	Interior	Analanji-rofo	Atsimo andrefana	Anosy	Total
Selected	105	540	510	465	510	585	525	1620
Occupied (or identified)	104	523	500	455	496	572	514	1582
Interviews completed	104	515	492	454	488	569	508	1565
Response rate (%)	100.0	98.5	98.4	99.8	98.4	99.5	98.8	98.9

Table 4. Results of interviews with parents and caregivers of school-aged children (6 – 18): number of households selected, occupied, and interviews successfully completed

Results	Urban	Coastal	Sub-coastal	Interior	Analanji-rofo	Atsimo andrefana	Anosy	Total
Selected	105	540	510	465	510	585	525	1620
Occupied (or identified)	103	524	498	461	504	568	514	1586
Interviews completed	103	522	496	460	502	566	513	1581

DATA ENTRY

Once the required number of surveys was administered, INSTAT transcribed the data from the paper questionnaires into an exportable format. This process included creation of a dictionary, development of the data entry template, creation of a data entry application in CPro, development of control and coherence mechanisms, and the testing of the process with completed questionnaires.

TRAINING OF DATA ENTRY OPERATORS

The quality and reliability of statistics depends not only on the data collected but the correct use of the data capture software. A three-day workshop was held in Antananarivo to train staff on the Data Entry Application CPro, a software package used for data entry in accordance with the questionnaire structure and to check the consistency of the recorded data. This workshop also covered coding procedures for some questions in the questionnaires.

DATA CAPTURE, CLEANING AND TABULATION OF RESULTS

Following the training, data from the questionnaires was entered to generate databases. This was followed by data cleaning to identify inconsistencies and missing data. In August 2015, a three-day workshop was held at the University of Witwatersrand in Johannesburg to plan the next steps in the process of data analysis. At the workshop, INSTAT representatives and the Ohio/Wits team agreed on the variables to be used to produce descriptive tables of the results.

QUALITATIVE DESIGN

Qualitative research was conducted by six five-person teams, with two teams were assigned to each of the three regions selected for the study. Four communities corresponding to the geographic strata used for the quantitative survey were selected in each of the three regions.¹³ To maintain the integrity of the research, none of the communities selected on a random basis for the quantitative study were included in the qualitative study. Each team spent two weeks in a community, collecting data through a range of qualitative research techniques including community mapping, transect walks, individual interviews, focus group discussions, and participant observation.

Table 5 lists the communities, with brief profiles. More extensive descriptions of each community can be found at the research project website: <https://madaresearch.wikispaces.com/rapports>

13. Three sites initially selected in Analanjirofo had to be substituted at the last moment by communities with similar socio-demographic profiles. The rainy season left the road between Sonierana Ivongo and Maroantsetra impassable. After a meeting at the regional Prefecture, the local authorities advised against the choice of Maroantsetra and Mananara as research sites because of security problems arising from the election campaign and the trafficking of rosewood.

Table 5. List of qualitative research sites

Region	Research site	Stratum	Principal economic activities	Notes
Analanjirifo	Ambohibe, Vavatenina district	Interior	Agriculture and cash crops (cloves, lychees, bananas, coffee), livestock raising and fishing	Substitute research site
Analanjirifo	Ambinany, Soanierana Ivongo district	Sub-coastal	Agriculture and cash crops (cloves, lychees, bananas, coffee), livestock raising and fishing	Substitute research site
Analanjirifo	Manakatafana	Coastal	On RN 5 and bank of Manakatafana River. Landing for commercial fishing and wholesale market.	Substitute research site
Analanjirifo	Morafeno, Fenerive Est	Urban	Small businesses, fishing, agriculture, markets; transportation center	
Anosy	Tranomaro	Interior	Mining, seasonal agriculture (rice, cassava, maize, potatoes)	
Anosy	Tsimelahy, Tolagnaro district	Sub-coastal	Hunting and gathering (dependence on nature), agriculture (rice, cassava, sweet potato and corn); tourism	
Anosy	Manambaro	Coastal	On RN 13 (Antananarivo-Fort Dauphin); market and transport center, mining	
Anosy	Tanambao, Tolagnaro district	Urban	Commercial and transport center; fishing, agriculture	
Atsimo Andrefana	Ampanihy	Interior	Agriculture--rice and livestock (zebu and pigs), mohair rugs, jewelry	Migrant population; ethnic mix
Atsimo Andrefana	Sakaraha	Sub-coastal	Sapphire mining and selling; seasonal -agriculture (rice, cassava, maize, potatoes) and cash crops (coffee, sugar cane, cotton); ecotourism	Migrant population; ethnic mix
Atsimo Andrefana	Belalanda	Coastal	Agriculture (potatoes, cassava), fishing, daily market	
Atsimo Andrefana	Mahavatse	Urban	Poor quarter of Toliara; fishing, small shops, markets, transport	Migrant population

The teams posed questions designed to capture the complexity of perspectives and experiences relating to the EFPs by meeting with a range of community members—from mothers, parents, grandparents and other members of the extended family to government officials, traditional leaders, teachers, health workers, traditional healers, religious leaders, media professionals, NGO staff, farmers and fishermen—and to people of all ages. In doing so, they noted communication networks and direct and indirect sources of influence on attitudes and behaviours. Field notes, transcripts, photographs and other research materials were uploaded to a document management site (Dropbox). The research data were analyzed using Atlas.ti software to identify themes and tendencies.

LIMITATIONS OF RESEARCH

The quantitative research study was designed to be representative at the regional level, so it is not possible to draw national or district-level conclusions. The qualitative research would have yielded more focused data if it had been conducted *after* the quantitative surveys were administered, and a preliminary data analysis completed, as envisaged in the original research design. Unfortunately, external factors delayed the training of data collectors and, thus, the administration of the surveys. Most notably, the period of *kere* (drought and food shortages) in the South in early 2015 made it impossible, from both logistical and ethical perspectives, to conduct field research. As a result, the quantitative and qualitative studies were conducted almost simultaneously in August and September. The result was that the UA teams went into the field with no guidance from a quantitative analysis about which issues needed further investigation.

Because a total of 15 days was budgeted for research in each community, it was impossible to visit remote communities, where a return trip could take up to eight days. The election campaign period and security issues also restricted the research process. As noted above, three communities originally selected in Analanjirofo had to be substituted because of difficulty of access or potential physical danger to researchers. For a description of research challenges in the field, see « Expériences des équipes de recherche sur le terrain » at <https://madaresearch.wikispaces.com/Rapports>

A three-day workshop on using Atlas.ti qualitative analysis software was held in September, and licenses purchased for university computers. The broad scope of the research and the multiple techniques (focus groups, informal group discussions, key informant interviews, observation, field notes and photographs) required the creation of a large number of coding categories, but it was still a challenge to classify more than 2,000 items and then identify key themes related to socio-cultural determinants, communication channels and influencers.

The final limitation (although also a potential benefit) is the large amount of data. The preliminary data and analysis from INSTAT (including methodology, tables and graphs) runs to more than 160 pages, see <https://madaresearch.wikispaces.com/Rapports> Although INSTAT and Ohio/Wits agreed on variables to be analyzed at the August workshop, conducting a factorial analysis on all of them would take considerable effort and time; similarly, UA, using Atlas.ti qualitative analysis software, has not been able to analyze all the data collected. UA has compiled tables of qualitative research for each of the EFPs, see <https://madaresearch.wikispaces.com/Rapports> More data can be analyzed to meet specific needs by the sections, or by UNICEF's government and civil society partners.

GENERAL FINDINGS

RQ1: What are the socio-cultural determinants of attitudes and behaviours relating to each of the EFPs, and how do they differ by region, strata, gender, education level and other socio-demographic characteristics? What are the barriers, bottlenecks and opportunities?

The study indicates that traditional practices and social norms may have been over-emphasized as barriers to attitude and behaviour change. Given the choice, most women would prefer to complete four pre-natal check-ups (CPNs), give birth in a medical facility and have their children vaccinated. Some cultural practices, e.g. consumption of Tambavy, the ritual for disposal of the umbilical cord, and Mifana (confinement or obligatory rest after childbirth), remain strong, but in many cases the barriers relate to supply, distance and cost of services rather than to cultural beliefs or tradition. Similarly, attitudes to education are based on a rational assessment of family needs; parents may believe in the potential value of education and at the same time be dissatisfied with the quality of education available.

In **WASH**, the connections between sanitation, clean water and health are now well understood by people living in rural areas. Both the quantitative and qualitative studies indicate that soap for handwashing may be considered an unnecessary expense. The low use of community latrines is frequently the result of lack of buy-in by communities. In the construction phase, the emphasis is usually on technical issues (location, access, materials) rather than on behaviour change and ownership by rural people who may have a low level of confidence in institutional actors. The location of latrines is not a matter of free choice because local socio-spatial traditions, collectively endorsed by the community, dictate where activities take place in a village, and stakeholders, including traditional and religious leaders, need to be consulted. Latrines may also be seen as the preserve of rich people or those who can buy toilet paper while poor people rely on nature (which is free) and go “in the forest.”

There are two types of basic **health** centers in Madagascar Centre Santé de Base (CSB) I and II. CSB IIs are managed by a doctor and paramedical staff and CSB Is are managed by a paramedical staff and aides. Distribution of funds and medications by government to CSBs is uneven. CSB Is, in particular, vary widely in the quality and regularity of service, and commitment of staff. Some medical personnel spend part of their time on home visits to private clients, receiving parallel payment for services and reducing their time spent at the CSB.

In some communities, health services are perceived as inaccessible or not available. They provide prescriptions and technical services such as “mandatory” vaccinations but do not provide a caring environment or patient monitoring and follow-up. As a result, medical personnel, while often considered qualified and trustworthy, may also be regarded as bureaucratic, cold and inaccessible, failing to explain diagnoses or treatments to patients, and suspected of withholding health information. Requiring advance payment for medical services exacerbates this negative perception,

particularly because health facilities broadly proclaim that health care is available to all. By contrast, traditional healers offer installment payments.

The research suggests that **education** is a strong priority for most parents/caregivers, despite barriers including distance from home to school, cost of education (school supplies, clothing and personal items for students) as a proportion of regular rural household expenses, and quality of instruction. Expectations regarding school and the reasons for education are many and varied; for example, competencies (ability to read, write, count and communicate), status, economic and parental pride. Children's education is not viewed as an end in itself but as part of a household or family strategy and thus related to other EFPs. Concrete and immediate household needs, e.g. zebu herding in rural areas, caring for younger children in urban areas, take precedence over children's schooling, and keeping children out of school to perform tasks necessary for family functioning is considered normal, because they are contributing to family life and taking responsibility.

The institution of school and the educational staff are sometimes viewed in contradictory ways. The rural population may have a low opinion of the FRAMs and local teachers recruited and paid for by parents because of frequent absenteeism¹⁴, poor qualifications (usually without formal teacher training and either having only a bachelor's degree or not even that qualification), lack of experience and lack of supervision or quality inspection. At the same time, education itself is regarded positively because it promises a better future for children and upward social mobility, especially by mothers who take pride in their children.

In regards to **child protection**, rural respondents indicated subjective notions of age. In their view, physiological development and sexual maturity are more important than the legal definition of a child or adult. To prevent young girls from falling into prostitution, early marriage offers one solution to keep the child at home. This results in the girl dropping out of school and leads to condemnation by institutions outside the community. The paradox is that while early marriage is prevalent in many communities most respondents in the quantitative study said they were opposed to early marriage. This raises the question of whether it is an entrenched social norm (and thus difficult to change) or simply a practice which can be abandoned given changed conditions. On the other hand, in all rural communities, rites of passage are still considered necessary to the social fabric.

14. There are two types of teachers in Madagascar—those trained and paid by the government and the Fikambanan'ny Ray Amandrenin'ny Mpianatra (FRAM), who are hired on contract by the local parent-student association. The FRAM are less qualified and often have to seek other work to supplement their meager salaries; that may mean taking a day or more to walk to and from an urban area for work.

RQ2: Who are the key actors and/or sources of influence and networks in relation to the EFPs?

In the quantitative study, respondents were asked to identify their sources of information related to the EFPs, and to list the members of their family or community that were most influential (multiple answers were allowed). The results in Table 6 can be broken down by region or strata, if needed.

Table 6: Key actors and sources of influence

Sector	Issue	Most influential	Per cent*
Education	Source of information	School director/teacher	47
		Radio 34%	34
		Chief of fokontany	30
		Community agent	16
Education	Who encourages education of children?	Chief of fokontany	60
		School director/teacher	58
Education	Who in family talks about school?	Mother	67
		Father	60
Education	Who decides on education?	Father	35
		Mother	21
		Both parents	32
Child protection	Who do you talk to about child abuse?	No one	35
		Partner/spouse	31
		Another member of family	10
Child protection	Source of information about transactional sex	Radio	36
		Neighbors	34
		Community agent	15
Child protection	Source of information on legality of sexual relations	Radio	45
		Members of family/friends	29
Child protection	Who can prevent sexual exploitation?	Parents	86
		Community leaders	33
		Teachers	26
		Religious leaders	15
Child protection	Source of information about early marriage	Members of family/friends	70
		Radio	47
		Community leaders	20
Health	Source of information about nutrition during pregnancy	Midwife	47
		Health agent	47
		Family	40
		Community agent	30

Health	Conduct of pregnancy (family members)	Mother/father	54
		Spouse	41
		Sister/brother	16
Health	Conduct of pregnancy (community)	No one	42
		Neighbors	33
		Health personnel	23
		Community agent	15
Health	Who advised you to take tambavy?	Mother/father	44
		Traditional healer	42
		Myself	30
Health	Who advised you to reduce amount you ate during pregnancy?	Myself	47
		Health personnel	41
		Mother/father	40
Health	Source of information on where to deliver	No one	48
		Neighbors	30
		Health personnel	20
Health	Source of information on vaccination	Health workers, meetings	55
		Community agents	52
		Family members	25
		Radio	25
Health	Who decides about vaccinations for child?	Mother	66
		Both parents	22
Nutrition	Who advised you to give colostrum?	Mother	32
		Midwife	22
		Traditional healer	14
		Health agent	11
Nutrition	Who advised you to breastfeed?	Mother	54
		Midwife	25
		Health agent	17
		Traditional healer	12
Nutrition	Source of information in feeding baby	Community agent	40
		Family	38
		Midwife	37
		Health agent	37
Nutrition	Source of information on foods not to eat during pregnancy	Health personnel	47
		Traditional healer	28
WASH	Source of information about clean water	Community agent	49
		Health agent	48
		Radio	40
WASH	Source of information about handwashing	Health agent	52
		Community agent	47
		Radio	40
WASH	Source of information about latrines	Community agent	49
		Health agent	40
		Radio	36

*Multiple responses allowed

To summarize, the quantitative research indicates that:

Parents and family members are key sources of information/influencers on education, early marriage, pregnancy, vaccinations and nutrition.

Radio is the only frequently-mentioned mass medium¹⁵ providing information on education, child protection and WASH, with less influence for respondents on topics related to nutrition and health.

Community agents are key sources of information/influencers on clean water, hand-washing, latrines and infant nutrition, but less influential on other EFPs. Some respondents in the qualitative research claimed that community agents focused their energies on national campaigns, but were not as active outside campaign periods.

Health agents are key sources of information/influencers on clean water, hand-washing, and latrines, and on some issues in health and nutrition.

School directors/teachers and chiefs of fokontany are key sources of information/influencers on education (but not on other EFPs). Although latrine use in schools is compulsory, enforcement of the rules is lax with school officials sometimes not venturing beyond the classrooms.

15. Scholars of mass media often caution against attributing too much power to any given channel. Oft cited is Bernard Cohen, who wrote that the media (press) “may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about.” Bernard C. Cohen, *The Press and Foreign Policy*, Princeton, Princeton University Press, 1963, p. 13.

Traditional healers have influence on nutrition (including consumption of *tambavy*) and tradition is cited as an important reason for not eating certain foods. However, traditional healers are not as important as other sources/influences in health.

Across the sectors, mothers-in-law, religious leaders, traditional leaders (*tangalomena*), NGOs, television, print media and posters are identified by few respondents as sources of information or influence.

The qualitative research suggests that women in villages are often members of informal groups. In some communities the most important women are the sisters and wives of the clan chiefs, the pastor's wife (for moral authority), the traditional birth attendant or midwife and the female traditional healer. The research also indicates that religious and traditional leaders, although they lack the monopoly on influence that has sometimes been attributed to them, still wield influence in communities and need to be included in decision-making. The maternal uncle, who according to some anthropological studies has historically played an important role in areas such as education and marriage decisions, was rarely cited, indicating a declining influence. The qualitative research indicates that the *tonton* (uncle), a word used by young people to describe an older male who becomes a “social godparent,” remains influential. For various motives, the *tonton* offers to help young people, especially those who are living away from home for education or work.

COMMUNITY-LEVEL COMMUNICATION NETWORKS

The qualitative research identified locations where people gather, and which provide opportunities for group-based communication. Such locations are determined by geographic strata (urban or rural), region, season or day of the week. In other words, the time and place of the intervention needs to be adjusted to the daily or weekly rhythms of the community. For example, in Mahavatse, a *bidonville* in To-liara (Atsimo Andrefana), people gather in markets and at water points at various times; however, the major event of the day that brings out many people is the return of the fishing fleet in the late afternoon or early evening.

Markets offer opportunities for group communication, e.g. through PA systems or megaphones, and also for circulation of simple print materials. Among the communication channels listed by the team in Tsimelahy (a sub-coastal region in Anosy) was the *sirikliaira*, a circular distributed on market day. Sample announcement: “Réunion sur la rivière Tarantsy (points d'eau) = approvisionnement en eau de Tsimelahy” [Meeting about the Tarantsy River (water collection points)—water supply for Tsimelahy].

Additional meeting points for potential “intercept” interventions:

Water collection points (points d’eau), communal pumps (bornes fontaines), or at river banks for women and young girls;

The homes of local leaders, influencers or people of importance

Churches, schools, health centers, community festivals such as the *tsarboraha* in Analanjirofo or the *havoria* in the South;

For young people: neighborhood video/CD stores/stalls, video games and Internet cafes, night clubs, karaoke bars, *jiromena* and other scheduled or more occasional social events from Thursday evening to Sunday.

Some respondents in the qualitative research stated that the *jiromena*, karaoke bars, community dances and other youth-oriented social events (some of them sponsored by communes or villages) contribute to transactional sex and drug and alcohol abuse. However, they are the places where young people gather, and so offer opportunities for C4D interventions. Rather than condemn them, we should be thinking about how music, dance and peer interaction can provide opportunities for promoting EFPs.

The qualitative research indicates the importance of localizing communication, and identifies some specific linguistic practices. An example from the team in Tsimelaha (Anosy): « Takasiry (famille) c’est le moment où les enfants peuvent partager les connaissances acquises à l’école (ou dans le champ avec d’autres enfants) sous forme de devinette. » [Family time is the moment when the children can share knowledge gained at school (or in the fields with other children) in the form of a riddle.]

RQ3: Which communication channels/media are available and trusted in relation to the EFPs?

MASS AND TRADITIONAL MEDIA

At the national level, the MDGs study (2013) reports that 43% of women aged 15-49 are not exposed to any form of media even at least once a week. There is only a slight difference among generations, but there is a significant difference between urban and rural areas. Media exposure varies with the level of education. Radio is the most common medium among women (49%), followed by television (23%). Only 18% of women read a newspaper at least once a week. Similarly, 38% of men (aged 15-49) are not exposed to any media, even at least once a week. Again, there is little disparity based on age, but significant differences between urban and rural areas. As with women, media access and exposure increases with higher levels of edu-

cation and income. Once again, radio is the most common medium of information, followed by television and then print media. The socio-demographic data gathered for the 2015 study broadly support the results of the 2013 MDG study, indicating that many people, especially those in rural areas, are not reached by media (radio, television or newspaper). Almost two out of three (62.3%) pregnant women and mothers with children under two years old and more than half of parents/caretakers of children aged 6-11 (52.7%) reported that they are not exposed to any media at least once a week.

Given low literacy levels and lack of electricity in rural areas, radio is the principal medium. One third of pregnant women/mothers and 43.5% of parents/caretakers listen to radio at least once a week. Geographical disparities exist with more than 70% from both respondent groups in interior strata stating that they have no media access. In Anosy and Atsimo Andrefana, mothers of children under the age of two and parents/caretakers with children aged 6-18 were more likely to report “no access whatsoever” to media than in Analanjirofo. However, even in that region nearly one third of parents/caretakers also reported having no media access.

Media access also varies by education level. Almost nine out of 10 mothers (86.1%) with no education had no media access, compared to only 29.7% for those with a secondary education; for parents/caretakers, the rates were 78% and 20% respectively. Age and marital status had no significant impact on media access.

Previous media studies by UA indicate that national billboard or poster campaigns on social issues that use technical or pejorative language do not reflect the experience of rural communities and are usually ineffective in changing attitudes and behaviours.

MOBILE PHONES AND INTERNET

Use of mobile phones is growing, but still only one in four respondents in the quantitative survey reported having access. For pregnant women and mothers with children under the age of two, 24% reported that there was a phone in their home; 86% of them said they had access to it. For parents/caregivers of children aged 6-11, the rates were 27% and 96% respectively, and for both groups, there was no significant difference across regions. The qualitative research indicates that in some rural areas, the phone, like other communications media such as a newspaper or radio, is often shared, at least with the extended family if not the community; although the purchase of the phone is a private transaction, its use is communal. Because of the lack of electricity, a new part-time occupation, the “chargeur de telephone” (using a car battery or solar panel), is also emerging.

Although lack of money makes it impossible for many families to own a mobile phone, usage will likely grow and provide opportunities for EFP-related messaging. Because interpersonal and small-group communication, in both formal and infor-

mal settings, is key to attitude and behaviour change, mobile phone use can be leveraged to reach people other than the actual users. The most cost-effective strategy may be SMS messages that target groups rather than individuals; in other words, a two-step communication approach¹⁶ where the receiver of the SMS relays the message to community members or neighbors, serving as a “multiplier” and also translating or “localizing” the information when necessary. However, even if the digital divide is reduced by increased access to mobile technologies, some people, especially in rural areas and with low literacy, will lack the skills to take advantage of it.¹⁷

Internet access for the two target populations is negligible: only 1.1% of pregnant women or mothers with children under the age of two, and only 1.9% of parents/ caretakers of children aged 6-11 have access. Rates are higher in urban areas and for those with more education, but still not high enough to justify investment. As with mobile phones, the “multiplier” effect may be important, with Internet users communicating to others by word-of-mouth. The quantitative survey did not include adolescents, but qualitative research indicates that Internet cafes are a popular gathering place (in urban areas and conurbations, even in rural areas, and especially on market days) for teenagers and young adults, raising the possibility of interventions around education and child protection. It should also be noted that young people combine digital media. For example, the communication channels noted by the team in Manambaro (fokontany Tsihary) in Anosy included, « radio card (possession de clé USB contenant des chansons de Barinjaka » and « téléphone foza de Telma avec lecteur MP3 (fichier audio). »

TRADITIONAL MEDIA

In general, community-based media, such as theatre or projects involving local artists and musicians, are seen as relevant and effective channels of communication because they use regional dialects and are regarded as locally originated, not imposed from the outside. These popular forms of cultural expression should be promoted locally, not through national campaigns. The qualitative study also noted that in some communities the *dalala*, a village crier (similar to a drummer in some African cultures) can serve as a communicator for health or education information. Because attitudes and behaviours are influenced by multiple communication channels, traditional media can become part of an overall communication strategy in which other networks and media are used.¹⁸ However, the potential role of the *dalala* as a communicator was not examined in the quantitative research, so any strategy using this or other forms of traditional media would need to be based on a local assessment.

16. The “two-step” model of communication is supported by substantial (if somewhat dated) research on mass communication. See: Katz & Lazarsfeld (1955). *Personal Influence*. New York: Free Press.

17. Van Deursen, A. & van Dijk, J. (2010) ‘Internet skills and the digital divide’, *New Media and Society*, 13(6), 893-911.

18. De Certeau, Michel, 1980 : 62-63. *L’invention du quotidien. Les arts de faire*. Paris: Gallimard, 1990 [The Practice of Everyday Life, trans. Steven Rendall, Berkeley: University of California Press, 1984].

FINDINGS BY SECTOR

The section briefs address the following research question:

RQ1: What are the socio-cultural determinants of attitudes and behaviours relating to each of the EFPs, and how do they differ by region, strata, gender, education level and other socio-demographic characteristics? What are the barriers, bottlenecks and opportunities?

NUTRITION

Nutrition EFPs :

1. Pregnant and lactating mothers seek an appropriate nutrition (EFP1-N)
2. Mothers of children aged 0- 6 months practice early initiation of breast-feeding and practice exclusive breast-feeding of their infants (EFP2-N)
3. Mothers of children aged 6 - 23 months provide varied and sufficient diet (EFP3-N)

Research Results: EFP n°01: Pregnant and lactating mothers seek appropriate nutrition (EFP1-N)

Maternal nutrition and dietary customs have intergenerational consequences, affecting both the mother and child. Widespread poverty and fragile food security are the major obstacles to improving maternal nutrition, and to providing mothers an adequate and balanced diet. Many families depend on subsistence agriculture; more than 90% of households live on under US \$2 per day and more than one third are classified as suffering from food insecurity (ENSOMD, 2012). With large numbers of children, many families find it impossible to adequately feed all family members. It is estimated that 27% of women of child-bearing age suffer from malnutrition (Sitan 2014). Adverse conditions—annual cyclones in Analanjirofo, drought in Anosy and Atsimo Andrefana--increase household vulnerability, and the amount and variety of foods available in most regions varies by season. The poor road network makes it difficult and expensive to transport food. The subordinate social status of women, traditional nutritional customs and taboos, and men's control over family spending contribute to the inadequate nutrition of women.

When asked if they had received information about nutrition during their pregnancy, 46% of women reported that they had. The most common sources of information were:

- Midwife 47%**
- Health agent 47%**
- Family 40%**
- Community agents 30%**
- Radio 16%**
- Neighbors/friends 10%**

Other sources (television, posters, and traditional healers) were reported at less than 10%. In the qualitative study, some respondents attributed poor nutrition habits to lack of knowledge, the absence of public nutrition centers in some districts or lack of information provided by center staff.

Almost half (48%) of pregnant women report taking *tambavy*¹⁹ during pregnancy. 80% of these women reported doing so because it was good for their health; 44% said they were advised to take it by a parent and 42% by a traditional healer. Across the three regions, 38% of women reported eating less as their delivery date approached; about half said it was their own decision, and about 40% named a parent or health worker as the source of advice. 79% of these women reported having done so to make their delivery easier or to avoid a large baby. Qualitative data suggests that pregnant women may be eating less for an “easier delivery” to address the issue of difficult or no access to health clinics.

About one in four (22%) of women said there were foods that a pregnant woman should not eat. Asked why, 41% cited tradition; traditional healers (19%) and health personnel (17%) were also listed as influencers. In interior regions of Anosy, some reported that the jack fruit is not eaten because of a belief that its rough exterior texture could lead to the death of the baby; in Analanjirofo, some vegetables and fruits, including bananas, are not eaten for fear that they could make the baby too large, resulting in a difficult birth. In Atsimo Andrefana, which suffers from periodic droughts and high poverty levels, respondents in some urban areas reported that fruits and vegetables recommended for pregnant women were perceived as luxury items. This qualitative data about localized practices serves a reminder that C4D interventions are more effective when tailored to specific contexts.²⁰

19. Tambavy does not have an exact English translation: it is a plant-based traditional medicine substance taken as a sedative or as a ‘cure-all’ remedy. See World Bank Working Paper (2006), *Participatory Approaches to Attacking Extreme Poverty*, p. 42.

20. Airhihenbuwa, C. (1995) *Health and Culture: Beyond the Western Paradigm*, SAGE, Thousand Oaks, CA.

Research Results: EFPn°02: Mothers of children aged 0- 6 months practice early initiation of breast-feeding and practice exclusive breast-feeding of their infants (EFP2-N)

Maternal breastfeeding is widely practiced in Madagascar with almost all children (98%) breastfed. However, this study confirms the finding of the 2013 MDGs study that immediate breastfeeding (within an hour of birth) is practiced by less than two out of three mothers. The rate has declined from 72% in 2008 (Sitan 2014). According to the EDS (2009) about half of children aged less than six months are exclusively breastfed. The rate of exclusive breastfeeding is highest in the first two months, and then rapidly drops in the 4th-5th month when almost 70% of children receive other liquids or complementary foods. Agricultural work or day labor contracts often prevent women from exclusive breastfeeding for six months. The mean duration of breastfeeding is estimated at 21.9 months, and of exclusive breastfeeding at 2.3 months.

There is considerable variation in the rate of breastfeeding by region and strata. Educational level and a birth assisted by a skilled birth attendant or at a health center seem to have a positive influence on the practice of breastfeeding (EDS 2009). Rates are lower in the South where only one in four (26.6%) practice exclusive breastfeeding for six months and 45.5% immediate breastfeeding (MICS 2012).

The majority of women are convinced of the benefits of breastfeeding their children, and almost all (99.9%) claimed to have done so. The mother (54%), midwife (25%) and health agent (17%) were the most important influencers; however, 29% said that no one advised them to breastfeed, indicating that the practice is almost universally accepted. Across the three regions, three out of four (75%) respondents reported that they gave their newborn child first milk (colostrum) on the advice of a mother (32%), midwife (22%), traditional healer (14%) or health agent (11%). This finding appears to contradict other studies (such as USAID/Mikolo, 2014)²¹ which state that the advantages of colostrum are not widely known, and that it is sometimes discarded. In Atsimo-Andrefana, 52% of respondents reported giving liquids within the first three days, compared to 34% for Anosy and 15% for Analanjirofo. Liquids such as water (53% reported) and sugared water (20% reported) are introduced a few hours after birth to relieve the baby's dry throat and to help digestion. The increase in breast milk depends on the mother's body and the quality of post-birth nutrition. Tambavy was mentioned by 33% of respondents who reported giving liquids within the first three days, although only in the two southern regions (36% and 42% for Atsimo-Andrefana and Anosy, respectively).

21. USAID Mikolo Project, Formative Research Report (2014) Identification of obstacles to healthy behaviours, p. 31: "The first milk (appearance, taste) is considered bad and unclean "and can cause diarrhea."

Other reasons cited in the qualitative research for supplements include the perceived insufficiency or poor nutritional quality of the maternal milk and concerns that the energy needed to pump breast milk makes the mother, already tired from giving birth, even more tired.

The practices of first giving teas (while waiting for the milk) and at four months boiled foods (flour, maize, etc.) in the belief that the child will grow faster are still prevalent. 44% of respondents reported that they provide additional food to children under six months. Two thirds of these (68%) reported that they began giving their child additional food at four months. Of the supplements provided, the most common are: *ranombary*²² (67%); tea (34%); rice (24%).

Research Results: EFP n°03: Mothers of children aged 6 - 23 months provide varied and sufficient diet (EFP3-N)

In Madagascar, the National Nutrition Policy (2004) follows the guidelines of WHO and UNICEF for young children’s nutrition. These recommend exclusive breastfeeding in the first six months followed by the introduction of complementary foods rich in nutrients, with breastfeeding continuing until the age of two. Among children aged from 6 to 35 months, 79% had consumed food rich in vitamin A and 46% foods enriched with iron. Food consumption increases with age, but it should be noted that children who have not been breastfed are fed more frequently than those who have been. For example, 58% of breastfed children had eaten fruits and vegetables rich in vitamin A, compared to 63% of those who had not been breastfed, and 41% of breastfed children ate foods such as meat, fish, poultry and eggs, compared to 53% for non-breastfed (EDS, 2009).

According to the MICS, among children aged 6 to 23 months, regardless of whether they had been breastfed, more than one third (38%) had received at least four different food groups and two thirds (68%) the minimum frequency of meals. Less than one quarter (22%) received “sufficient” nutrition, which relates to both the minimum frequency of meals and at least four food groups (nutritional diversity).

60% of respondents said they had received information about feeding a baby; four sources were ranked almost equal—community agent (40%), family (38%), health agent (37%) and midwife (37%). Almost all (99%) respondents reported that their children aged 6 - 23 months had eaten solid, semi-solid, or other foods in the past day or night. Of these, 82% were still being breastfed. One in four (25%) reported providing four or more complementary feedings to their 6 - 23 month old child; 48% reported providing three complementary feedings, and 26% one or two. Four out of five (80%) reported that their 6 - 23 month old child had their own plate for feeding.

22. *Ranombary* has several methods of preparation but typically refers to the milky water that arises from soaking rice or from the top milky liquid that sits on top of boiling rice.

While the majority of women report that they plan to breastfeed their child until at least 24 months of age, the reality is that a much smaller number actually do. In fact, the mean age at which women reported ending breastfeeding was 16 months, while the mean age at which women who had just started breastfeeding reported *planning* to stop was 24 months.

HEALTH

Health EFPs:

4. Pregnant women seek 4 pre-natal consultations (EFP4-H)²³
5. Mothers have children aged 0- 23 months vaccinated according to the calendar (EFP5-H)

Research results: EFP n°04: Pregnant women seek 4 pre-natal consultations (EFP4-H)

The practice of CPNs is beginning to be followed in rural areas. The 2008 DHS and 2012 MDG studies indicate that about 50% of pregnant women make the recommended four or more CPNs. According to the DHS, about 27% make the first CPN within the first 4 months; about 42% come in at about 4-5 months, another 20% in the 6th-8th month of pregnancy. About 37% make 2-3 antenatal care visits; it is likely that they don't make the 4th visit because they start antenatal care too late to incorporate a 4th visit.²⁴

Among family members, respondents cited the mother or father (54%) or spouse (41%) as the most influential concerning the conduct of the pregnancy; in the community, neighbors (33%) and health personnel (23%) were most influential. However, 42% said that no one in the community had had an influence on their decision-making.

The rates of completing four CPNs are lowest in the South—51% in Atsimo Andrefana and 55% in Anosy. In Analanjirofo, two thirds of pregnant women (66%) complete four CPNs. As with other EFPs, e.g. vaccination, the rates are highest in the urban areas, and lowest in the interior.

23. The UNICEF Health section requested additional data on birth/delivery (accouchement), which is provided below.

24. The qualitative research suggests that some people think the child does not exist until the fetus develops and a perceptible heartbeat is heard; in early pregnancy, the fetus is perceived as non-human, as a *biby an-kibo* (little beast of the belly) or *raha* (thing). Some respondents cited a belief that pregnant women have evil powers, leading women to hide their pregnancy until the 5th month. More research is needed to learn if such beliefs are held by a significant number of people, or are restricted to small numbers or specific communities.

Women who did not complete a CPN within the first four months of their pregnancy listed four main barriers:

Midwife 47%

Distance from the health center 21%

Too busy/no time 19%

Ignorance/unfamiliarity 17%

Other reasons included fear of the health agent (3%); following the advice of a traditional midwife (2%); too expensive to get to the health center (3%); advised against going by a family member (1%).

The qualitative research supports this analysis with respondents citing distance from the health center, the costs of travel, the absences of medical staff, and long waiting and consultation times as reasons for not seeking care. Some respondents said that they relied on traditional healers or birth attendants for care during pregnancy, because of local practice and unwillingness to spend money on health care; others stated that they did not understand the purpose of CPNs. Many respondents, however, understand and follow other pre-natal advice: 73% of women reported taking folic acid during pregnancy, for example.

Across the three regions, the practice of CPNs is closely tied to educational level and economic activity. Only 41.6% of mothers without primary education made four CPNs, whereas 61.8% of mothers who completed primary education did. Mothers working in agriculture were 12% less likely to complete four CPNs as those working in other occupations, all other factors being held equal. In Atsimo Andrefana, women who have completed some primary education are 2.6 times more likely to make four CPNs as those who have no education, and those with some secondary education 4.4 times more likely. In Analanjirofo, age and completion of some secondary education are the statistically significant factors.

A multivariate analysis shows that four factors--distance from health center, advice of a midwife, age and education--were predictive of the likelihood that a pregnant woman will report receiving four or more CPNs.

Respondents stated that community health workers, neighbors, community agents and close family members were most influential in the decision to seek CPNs. Traditional healers and birth attendants were least likely to recommend CPNs.

Research results (supplement): Birth/delivery at medical facility/health clinic

According to the MICS (2013), in the South three-quarters of maternal deaths occur during delivery. It is necessary to provide mothers with affordable, convenient access to assistance by qualified medical staff during delivery. Increasing the number of births in health facilities is important to reducing risks for the mother and her baby.

Two thirds of mothers with children under two years said they delivered at home, either in their own home (46%) or in someone else's home (20%). About one quarter said they delivered at a community health facility and 6% in a hospital. When asked who in the community advised them on where to deliver (multiple choices allowed), neighbors were cited by 30%, health personnel 20%, community agents 11%, and traditional birth attendants 11%; almost half (48%) said no one.

Of respondents who did not deliver at a health facility, 45% said it was because it was too far away, 16% said it was too expensive, and 12% said it was not necessary. In Analanjirifo, distance was the barrier cited by 62% of mothers; in the south, particularly in Atsimo Andrefana, the cost of delivery was listed as the second most important reason. These findings are supported by the qualitative research, with respondents noting a range of barriers including “the distance to travel to health centers, the frequent absence of staff and the shortage of supplies and equipment”; and “costs of delivery at a health center—travel, food, medical expenses—compared with delivery by a midwife.” Fees include an obligatory “gift” to the medical staff, depending on the sex of the newborn (more for a boy than a girl).

The barriers to delivery at a medical facility appear to be structural rather than a result of custom or belief. Of respondents, 90% said they would prefer to deliver in a health facility to protect their health. Another incentive for delivery in a health center, noted in qualitative research in Toliara (Atsimo Andrefana), may be that a birth certificate is issued. With a home delivery, the mother would need to travel to an administrative office to obtain the birth certificate, involving cost and bureaucracy.

Just over one third reported that qualified medical personnel (30% nurse or qualified midwife, 5% doctor) assisted at the delivery. 11% had a trained traditional birth attendant, 31% an untrained traditional birth attendant, and 19% parents or friends.

Some traditional practices related to birth remain strong. To prevent bad spirits from interfering with the health of the child, 90% of respondents agreed with the statement that the placenta and umbilical cord should be buried. 98% said they buried the placenta, and 99% of them said they did this for traditional reasons. With the umbilical cord, 42% buried it, 35% kept it, and 22% said they did some-

thing else with it ('other'). In all regions of Madagascar, the umbilical cord is a symbolic link to place and ancestral descent, so people are careful to return it to their community in one form or another. An analysis of the Malagasy responses to the 'other' category reveals that many put it in "the place for throwing away umbilical cords" or "the ancestral lands" or buried it in the forest or rice fields. In Analanjirofo, estuaries and rivers are important places of identity and ancestral belonging, with descent groups associated with particular estuaries. In this region, most said they threw the umbilical cord in the river or in the sea or "dropped it in running water," symbolically returning it whence it came. Giving it to cattle to eat also returns the umbilical cord to the source of ancestral wealth: cattle. The anomaly was "throwing it on the rubbish heap," because this leaves it exposed.²⁵

There do not appear to be bureaucratic barriers to the disposal of the placenta and umbilical cord, and the practice does not pose health risks. However, the cultural significance of the placenta and umbilical cord needs to be noted. Any public health policy that restricted the rights of families in this regard would be a disincentive to delivery in a health facility.

Research results: Essential Family Practice EFP n°05: Mothers of children aged 0- 23 months ensure their children are vaccinated according to the calendar (EFP5-H)

The study indicates that most mothers are well informed of the benefits of vaccinations, and want to have their children vaccinated. There are no significant socio-cultural barriers to vaccination, or strong anti-vaccination feelings, except among a few ethnic or religious groups. Of the two main barriers cited by parents, "distance to health centers" and "missing the time when vaccinations happen," the latter provides potential for change via communication for development. In terms of "distance," the barrier may not be physical (i.e., number of kilometers) but lack of a safe route through a forest or a bridge across a river. In all three regions, respondents said that communication by local health officials was more effective than national campaigns, and recommended that vaccinators come to villages at key times rather than only during vaccination campaigns.

The rates of complete vaccination for children vary somewhat according to the data sources. UNICEF research indicates that the percentage of children completely vaccinated declined from 47% in 2003 to 38% in 2012 (Sitan 2014). The DHS (2009) reported that 55% of children aged 1-12 months were completely vaccinated according to the recommended schedule. In the group aged 12 to 23 months, almost two thirds (62%) received all the PEV vaccines, that is one dose of BCG (the first required vaccine), three doses of DTC, three doses of polio and one dose of measles vaccine. The data indicate a higher coverage rate in urban (81%) than in rural areas (60%). The MICS (2012), conducted in four regions of the South, reported that among children aged 12 to 23 months, almost two thirds (64%) had been vaccinated against tuberculosis and less than half against polio, measles, diphtheria, tetanus and pertussis (DTC).

25. Translation and analysis of responses by anthropologist Dr. Luke Freeman of University College, London.

Independently of the vaccination calendar, there is significant variation in rates between the three regions. Analanjirifo ranks highest with 91.7% of mothers claiming their children have been vaccinated; in Anosy, the rate is 82.48%, but in Atsimo Andrefana only two out of three (64.78%) say their children have been vaccinated. Almost half (46%) of respondents presented a vaccination card to the data collector; these showed that 93% of children had been vaccinated for BCG (the first required vaccine).

The vaccination rate is lowest (60%) among mothers without any primary education or jobs outside the home. Vaccination rates increase according to the education level of the mother; for those who finished primary school, the rate is 72%, and for those who completed secondary education 85%. This correlation underlines the cross-sectoral impact of improvements in school enrollment and retention.

Vaccination rates correspond with media use. Three out of four mothers (75%) who listen to the radio at least once a week had their children vaccinated, and the rate for those who watch television or read newspapers (89%) is even higher. Media use is closely related with educational and literacy levels, so media are not an independent variable; in other words, media reach mostly those who, because of their educational level and employment status, are already more likely to vaccinate their children. Media coverage also remains limited, with only one in three mothers of children under two years listening to the radio at least once a week (the rate is higher for parents/guardians of school-age children, but still under 50%).

For those who did not choose to vaccinate their infants (19% of all respondents), the most cited reasons were the following: “Missed the time for the vaccinations” (26%); “Distance” (57%).

The practice of *Mifana* (confinement or obligatory rest for 3-6 months following birth) has been cited as a potential barrier to vaccination. The study showed a statistically significant relationship between the length of *Mifana* in weeks and the likelihood of vaccination. Those mothers who were secluded for 0 - 2 weeks were more likely to vaccinate their children than those who practiced *Mifana* for more than two weeks.

Some qualitative studies suggest that fears or taboos about needles may be barriers to vaccinations. This is not supported by the quantitative research as a widespread phenomenon. No participants who chose not to vaccinate their children reported that it was “taboo” and the number listing “fear of needle” was not significant. However, several said they perceived their child/ren to be too young for vaccination. Other reported barriers—the fear that the vaccination could lead to fever or illness, paralysis, or other complications—were also not supported by the quantitative data. There was also no data to support the perception that some people did not recognize the benefits of vaccination because they saw healthy, working people who had not been vaccinated.

It has been argued that fear of going to health centers and public offices is a barrier. This is tied to the concept of *gasigasy* and the perception that vaccines are a “*vazaha*” imposition. (In this context, “*vazaha*” refers to people of a different economic or social status, including government officials, doctors, health workers, not only foreigners). However, 96% of respondents agreed or strongly agreed with the statement “I have confidence in the advice about vaccination I receive from the health center.”

There is a statistically significant relationship between the declaration of a religion²⁶ and the likelihood of reporting having vaccinated a child, with those declaring any religion more likely to report vaccinating the child. In addition:

Perception of risk was significantly related to non-religious status, with those stating “no religion” less likely to agree or strongly agree that their child would be at risk without vaccination.

Impact of non-vaccination on others was significantly related to non-religious status, with those stating no religion less likely to agree or strongly agree that non vaccination could make their child and others ill.

Overall, however, it appears that most mothers are aware of the benefits of vaccination, and that access and timing are the principal challenges. Most respondents reported knowing the benefits of vaccination:

94% agreed or strongly agreed that they could benefit from vaccinating their child

92% agreed or strongly agreed that not vaccinating could lead to a serious illness

88% agreed or strongly agreed that not vaccinating could lead to an illness than could cause others to become ill

Among respondents, 91% reported that they had received information about vaccination. Among these, the most frequently mentioned sources were:

Health workers, posters and meetings 55%

Family members 25%

Neighbors 19%

Community agents 52%

Radio 25%

26. Except for Adventists in Atsimo Andrefana and Anosy who oppose modern medicine.

EDUCATION

Education EFPs:

6. Parents and caretakers of children aged 6 - 11 years enroll children in primary school (EFP6-E)
7. Parents and caretakers of children aged 6 - 11 years ensure that their children finish primary school (EFP7-E)

Research Results: EFP Nos. 6 & 7: Parents and caretakers of children aged 6 - 11 years enroll children in primary school (EFP6-E); Parents and caretakers of children aged 6 - 11 years ensure that their children finish primary school (EFP7-E).

Although education is compulsory from the age of six and is a national priority, Madagascar is far from the goal of attaining universal primary education. According to the 2012 MDGs study, the net primary education enrollment rate is 69%, a substantial decline from the 2005 rate of 83%. About 1.5 million children of school age are estimated to be out of school and only three out of 10 children who start school complete primary education (UNICEF CPD, 2014). More than three quarters (78%) of the population has completed primary education, and about one third (31%) secondary education (EDS 2009). There is gender parity in primary education; in the southern regions, the enrollment ratio for girls is slightly higher than for boys. There is variation in access to education and the quality of schools and teachers. In general, education is poorest in rural areas, which depend on subsistence agriculture or zebu herding, better in urban areas with a more diversified economy and where schools are within walking distance. In towns and mining communities, private schools have been established to meet the needs of families who can afford to pay for education.

In this study, parents and guardians reported that almost two out of three (1,376/2,167—64%) children aged 6-11 were enrolled in school. There was no significant difference in the proportion of girls and boys enrolled.

Enrollment rates varied by region. In Analanjirofo, 92% of respondents reported that their children aged 6 - 11 were enrolled in the previous year; in Atsimo Andrefana this dropped to 57% and in Anosy to 53%. Of the children who are unenrolled, half (50%) are involved in domestic tasks. 38% are reported to be involved in neither domestic tasks or income generating tasks; 11% are reported to be involved in both domestic and income-generating tasks.

A central theme in several qualitative studies (including UNICEF’s 2013 mapping study) is that parents do not see the value of education, and believe that completing school will make no difference to the child’s or the family’s future. Children are a source of labor and income to their families; education does not form part of the traditional tasks allocated to family members (domestic work, child care, working in fields, herding of zebus) and does not meet immediate needs.

This study found that the vast majority of respondents (92%) believe that their children should attend school. A small percentage, particularly in Anosy, believe that their children should assist with domestic tasks. About one sixth (13%) reported that there are cultural practices, traditions or beliefs that do not support the enrollment of children in school; these reported beliefs or traditions are more prevalent in Anosy than in the other two regions.

In regard to retention, 4% of parents/guardians reported that they had a child who had dropped out of primary school, and 6% reported that their child had missed a month or more of school in the previous year. The primary reason reported for a child missing a month or more of school was the absence of teachers (29%). There are two types of teachers in Madagascar—those trained and paid by the government and the Fikambanan’ny Ray Amandrenin’ny Mpianatra (FRAM), who are hired on contract by the local parent-student association. Government teachers are generally better qualified; they require certification and continued teacher training. However, especially since the 2009 political crisis, there have been periods when they have not been paid for months, forcing them to seek other work and making it difficult to keep them accountable. The FRAM are less qualified; however, because they are paid by the parent-student association, they are more accountable and cannot be frequently absent and keep their jobs. Understanding the dynamics of the education sector requires determining the teacher type and the strength of the parent-student association.

10% of respondents reported that girls do not attend school during their menstrual cycle. The qualitative research suggests that some school absences may be related to nutrition; some children do not eat (or do not eat enough) before coming to school and therefore are unable to concentrate.

In the case of students who were enrolled at one time but had withdrawn from school in the past year, most withdrew in class T1 or class T2; again, the rates of withdrawal were higher in the two southern regions than in Analanjirofo. Of those who dropped out, approximately 75% reported being involved in domestic work or zebu herding far from their home (also considered a domestic task). Most respondents (88%) believe that it’s possible for a child who drops out to be readmitted or reintegrated. However, only 25% were aware of the possibility that a child who dropped out could retake a grade level.

Sources of information and influencers

Radio is the most important mass medium, with 43.5% of parents and guardians saying they listened to radio at least once a week. Four out of five (81%) of those who listened to radio said they had heard messages about enrollment. When asked from whom they received information regarding enrollment, respondents reported the following:

School director/teacher 53%

Radio 34%

Chief of fokontany 30%

Community agent 16%

Association FRAM 14%

The chief of the fokontany (60%), the school director/teacher (58%) and traditional leaders were also listed as the most influential in encouraging enrollment; only one in 10 respondents mentioned a religious leader. When asked about the content of discussions with these individuals, respondents reported: necessity of enrolling children (82%); advantages of enrolling children (71%). In contrast, **completing** primary school was mentioned as important by only 26% of respondents.

CHILD PROTECTION

Protection EFPs:

8. Parents /caretakers of children (10 – 18) disallow children to marry before the age of 18 (EFP8-P)
9. Parents /caretakers of children (10 – 18) adopt non-violent behaviours towards their children (EFP9-P)

Research Results: EFP No. 8: Parents /caretakers of children aged 10 – 18 years disallow children to marry before the age of 18 (EFP8-P)

Child marriage is prevalent in Madagascar, with close to half the female population aged 15-49 married before the age of 18,²⁷ the number being higher in the South (65%). About 12% of the female population report marriage before 15 years of age. Early marriage often results in teenage pregnancies and contributes to maternal mortality and morbidity. As of 2012, 37% of women aged 15 to 19 years reported having started their reproductive life (UNICEF CPD). Males tend to marry later than females. Typically, parents arrange marriages for their children at a very early age, sometimes even at birth. Early marriage can be a means of economic gain or persevering kinship or village ties.

The study reveals disparities between practice and attitudes. Despite the prevalence of early marriage, 77% of respondents reported that they were either “against” or “entirely against” marriage under the age of 18. Only 15% said that they would like their daughters to be married under the age of 18; 8% said that they would like their sons to be married under the age of 18.

Of course, some respondents may have been giving what they considered to be the ‘right’ answer to the data collectors. On the other hand, if early marriage is a deeply entrenched social norm, the fact that three out of four respondents say they are opposed to it is significant. 39% of respondents reported that there were cultural practices in their community that encouraged early marriage. In contrast, 24% reported that there were cultural practices that discouraged early marriage. Qualitative research indicates that some parents marry their daughters in adolescence to stop them from “falling into prostitution.” Marriage was also mentioned by parents

27. Randriamasitiana, Gil Dany, « Le mariage (précoce) dans la société Malgache : enjeux sociaux, économiques et relationnels. » Conférence-débat « Les aspects socioculturels et juridiques des mariages des enfants et de toute autre forme d’exploitation des enfants qui s’y apparentent à Madagascar » 02 juin 2015, Antananarivo. « Le mariage n’a pas d’âge compétent. Il n’est pas rare de voir de toutes petites filles mariées à des hommes vieux. ...L’adultère, s’il est constaté par le mari, entraîne une amende de bœufs pour le complice. Le mari oublie très vite l’injure faite à son honneur si les bœufs donnés sont nombreux ». Rajohnson, (1908) « Etude sur les Antanosy et les Antandroy » In *Bulletin de l’Académie Malgache*, Vol. VI, Tananarive, Imprimerie Officielle de la Colonie, p. 177 – 196, ici, p.183

as a financial opportunity or as a way of preventing the child from going far away from the village. Some respondents said that the practice is endorsed by community leaders who often themselves marry young girls.

Child marriage is most commonly practiced in the South. In Anosy, 24% of respondents reported that they would like their daughters to marry under 18; in Atsimo Andrefana the rate was 19%. Cultural practices encouraging early marriage were also more likely to be mentioned in these two regions.

The issue is complex, because there is no common definition of marriage in Malagasy society. In rural areas, relationships are marked by traditional ceremonies—from the *tampi-maso* or *tako-maso* (“covering of the eyes”) when parents acknowledge the existence of a sexual relationship, to the *vodiondry* (“sheep’s rump”) when families are brought together and gifts, zebus or money exchanged as a social contract. In other societies, such marriages would be regarded as common-law relationships, and many are not legally recorded. Marriage can also be classified by the type of arrangement:

- **Early marriage: marriage of older men, wealthy or not, to young girls;**
- **Marriage arranged from birth or by birth (between families or lineages);**
- **Marriage with a member of the family²⁸ to avoid the dispersion of the family patrimony;**
- **Marriage to form economic or political alliances with other families, clans or villages; and**
- **Polygamy: forbidden by law, still practiced throughout the country, most often in rural areas.**

Almost two thirds of respondents (61%) reported having heard of the concept of early marriage. Seven out of 10 (70%) cited family members or friends as the source of information; almost half (47%) reported hearing about it on radio. Awareness of the concept was significantly associated with a wish for their children to marry at 18 or older. Almost half (46%) reported knowing about laws concerning child marriage and 50% knew that the legal age of marriage in Madagascar is 18. A relatively small percentage (10%) of respondents reported that child marriage is a form of child abuse.

²⁸. Restricted to non-uterine members of the family, e.g. there would be no marriage between children of two sisters.

Fathers are most likely to be the decision makers regarding marriage before the age of 18; 75% of respondents reported that the father would make the decision for a son and daughter. Mothers were more likely to be involved in the case of their daughters, with 12% of respondents reporting that a mother would make the final decision on the marriage of a daughter under 18. One in three (35%) respondents reported that if a girl under 18 is asked for her hand in marriage, she does not have the right to choose her future husband.

The most frequently mentioned negative consequences of early marriage for girls were:

Difficulty in managing the family (53%)

Leaving school (48%)

Risky pregnancy (46%)

Complications in delivery (31%)

Problems with health of the mother (24%)

10% of respondents reported not knowing any negative consequences.

When asked about the most beneficial time for their children to get married, respondents reported the following:

When financially independent - 36%

When they have the capacity to support their future family - 20%

When they have completed tertiary studies - 16%

When they have adequate employment - 15%

Research Results: EFP No.9: Parents /caretakers of children aged 10 – 18 years adopt non-violent behaviours towards their children (EFP9-P)

Violence against children in Madagascar is tolerated and under reported. The MICS reports that over 80% of children (2-14 years) have experienced at least one form of violent discipline. 20% of children were subjected to severe physical punishment and 64% to physical punishment. The majority of caregivers (71%) consider physical punishment necessary to raise children properly. Asked “Who would you talk to regarding child abuse?” one in three respondents in the study said “no one,” and only 30% mentioned a spouse or partner. A few would talk to other family members, but very few respondents listed teachers, religious leaders, community or health workers, NGOs or the police, indicating the general social acceptance of the practice.

According to the MDGs study (2013), among adolescent girls (aged 15 to 19), 14 % experienced sexual violence and 15% physical violence. The Special Rapporteur on the Sale of Children, Child Prostitution and Child Pornography reported increases in sexual exploitation of children including prostitution and sexual tourism since the onset of Madagascar's political crisis (CPD, 2014).

Over a quarter of women (aged 15-49) consider it justifiable for a man to beat his wife/partner if she neglects the children (EDS, 2009). Interestingly, the predisposition towards domestic violence is higher among women in Antananarivo (25% compared to 19% in rural areas) and those under 30 (20 % compared to 17% among ages 45-49). According to the MICS, 37% of women consider it justifiable for their husband/partner to beat them for a reason (such as neglecting the children, arguing with their husband or refusing sex). Surprisingly, this attitude is more prevalent among women in urban areas, those with at least a secondary education and belonging to the highest wealth quintile. The low status of children and women, normative acceptance of violence and the pervasive impunity of perpetrators allows violence against children and women to persist.

Qualitative research attributed some responsibility to parents, noting that in some cases the perpetrator is an adult whom the parents have entrusted the care of the child without suspecting his/her bad intentions. Several studies have also noted the use of young girls as sexual presents for visitors (when a visitor is housed in the same place as a young girl, there is an implicit understanding that a sexual encounter is condoned).

Research results (supplement): Transactional sex

The study found that 45% of women in the parents/caregivers group reported having had a single instance of sexual relations with a man²⁹ at some point. The most frequently reported reason for doing so was for money (77%), followed by clothing (34%), food (27%), and a place to spend the night (10%). Almost half (48%) of women who reported engaging in a single instance of sexual relations did so under the age of 18.

The study found a statistically significant relationship between those who reported attending school at any time and the likelihood of reporting engaging in a single instance of sexual relations with a man. It also found a statistically significant relationship between region and the likelihood of engaging in a single instance of sex with a man for money; this was most prevalent in Anosy.

Among men, 76% reported having had a single instance of sexual relations with a woman³⁰. The most commonly mentioned things men reported giving in exchange

29. The survey instrument used the term “man” (without specifying if referencing husband).

30. The survey instrument used the term “woman” (rather than wife).

for sex were money (86%), clothing (33%), food (29%), drinks and a good time (13%), and a place to sleep (13%). On the subject of transactional sex, 36% listed radio and 34% neighbors as sources of information.

In qualitative research, respondents identified night clubs, karaoke bars, *jiromena* and other social events as places where transactional sex (along with alcohol and drug use) took place. In general terms they also blamed non-informational media such as videos and the wide availability of pornography.

Respondents to the quantitative survey reported conservative attitudes regarding their children's behaviour. 88% of respondents reported that they would not allow their daughter to go to a nightclub alone; 91% would not allow her to go to a bar with friends; 94% would not allow her to go out with an unknown man. For sons, the numbers were nearly as high: 75%, 78%, and 79% respectively, for permission to go to a nightclub, go to a bar with friends, or go out with an unknown girl/woman.

Regarding the behaviour of other children, 50% of parents who were aware of a child engaging in transactional sex reported that they would inform the child's parents; 32% said they would do nothing.

60% of parents reported that they were aware of a law that forbade transactional sex among children under the age of 18, while 96% reported that it is punishable by law; 45% listed radio as their source of information about the law, and 29% family or friends. When asked who in the community can prevent or stop sexual exploitation, more than four out of five listed parents; teachers and community leaders were also considered influential, but only 15% listed religious leaders and 2% NGOs.

WASH

WASH EFPs:

10. Households wash their hands with soap at critical times (EFP10-W)
11. Households drink safe water by using an improved source or by effectively treating the water of non-improved sources (EFP11-W)
12. Households build and use latrines. (EFP12-W)

Research Results: EFP 10: Households wash their hands with soap at critical times (PFE10-W)

Almost three out of four respondents (72%) agreed that there were moments during the day when they needed to wash their hands. While 87% of those listed “before eating” as a moment for washing hands, only 52% mentioned “after defecation.” Only 17% mentioned “prior to feeding an infant” and 40% “prior to preparing food.”

When asked the reasons for washing hands, 53% reported that it was to kill germs or microbes; 92% mentioned that it was for removing dirt from their hands. A smaller percentage, 23%, mentioned that “dirty hands smell/feel bad”.

70% of respondents reported having received information about washing hands with soap or ash. The most important sources of information were health agents (52%), community agents (47%) and radio (40%). Two thirds (65%) said they used soap to wash their hands and 5% ash; the remaining 30% used only water or other locally available substances such as sand. One third (32%) reported that their families used soap every time they washed their hands while 68% reported using soap some of the time.

Among those who never used soap to wash their hands, more than four out of five (85%) said the primary reason was not having money to buy soap. This is supported by the qualitative research where respondents cited poverty as the main barrier. A typical comment was: “We don’t have anything to eat so why should we buy soap?” However, it appears that some lacked knowledge of basic hygiene; 9% of respondents said they didn’t think that it was necessary to wash with soap. The primary reason (75%) for not using ash was because it was “pas une habitude.”

A quarter of respondents reported washing their children’s hands less than twice a day with the majority of 67% claiming to wash their children’s hands 3-5 times per day.

Research Results: PFE No 11: Households drink safe water by using an improved source or by effectively treating the water of non-improved sources (PFE 11-W)

Nationwide, a little less than a quarter of households have access to a safe water source and almost one half (49%) use treated water (EDS 2009). In the southern regions, only one in four households (26%) have access to safe water and less than one sixth (16.3%) use treated water (MICS, 2013). The principal obstacles are the availability of potable water and the preference for using water directly from the source without treatment because it is perceived as potable. According to UNICEF's Situation Analysis, 57% of people who have access to a water-supply system still drink surface water, and only 28% of public primary schools have potable water points (24% in rural areas versus 57% in urban areas). There are disparities based on income level, between urban and rural areas and between ecological and climatic zones. Water supply is more reliable in the highlands and the northern coastal areas than in the south, which is subject to periodic droughts.

Approximately 40% of respondents reported that they obtained drinking, cooking or washing water from a surface source such as a river, canal, lake, or another unprotected source. An additional 20% reported that they obtained water from an unprotected well. The mean time reported to obtain water was nearly 30 minutes. Collecting water was mainly done by adult women (67%) and young women under 18 (17%). Of those with access to potable water from a protected source, 61% reported that they had no difficulty collecting it; 57% reported paying to keep the water point in working order.

The use of non-protected wells was much higher in Atsimo Andrefana (28%) than in the other two regions (14% in Analanjirofo and 18% in Anosy). However, the use of surface water (lakes, rivers, canals, etc.) was higher in Analanjirofo and Anosy, 43% and 48% respectively, compared to 30% in Atsimo Andrefana.

Overall, 98% of respondents agreed with the statement "I will use potable water because I want to keep my family in good health" and 83% with the statement "If I know that the water from the river or other unprotected source is not safe, I should stop using it for drinking in my household."

However, two thirds of respondents without access to a protected source of potable water did not treat the water they collected. Of those who did (33% or 364/1078) 86% reported that they boiled water and 18% said they added a chemical such as chlorine, Javel, or Sur'eau. The most widely reported reasons for boiling water were:

- Treated water is clean - 79%**
- Treated water is healthy - 70%**
- Because my family does it - 11%**
- Because my neighbors do it - 11%**

Because a health agent advised me to - 11%

Almost two out of three respondents (61%) reported receiving information about potable or treated water. The most important sources of information were community agents (49%), health agents (48%) and radio (40%). However, a knowledge gap remains. Overall, two out of three respondents (68%) reported that water from the river is potable and 74% that water from a spring is potable. This varied significantly by region, as indicated in the tables below.

Table 7: Responses by region to the question “Is water from the river potable?”

	Yes	No	Don't Know
Analanjirifo	59%	41%	0%
Atsimo-Andrefana	60%	39%	1%
Anosy	85%	14%	1%

Table 8: Responses by region to the question “Is water from a well potable?”

	Yes	No	Don't Know
Analanjirifo	82%	16%	2%
Atsimo-Andrefana	60%	40%	0%
Anosy	81%	17%	2%

Table 9: Responses by region to the question “Is water from a piped fountain potable?”

	Yes	No	Don't Know
Analanjirifo	72%	20%	8%
Atsimo-Andrefana	61%	28%	10%
Anosy	77%	17%	6%

On a regional level, the qualitative research indicated several threats to safe water. In Atsimo Andrefana, some well water is polluted by animal carcasses, and river and well water by bilharzia disease. In Analanjirofo, some people use well water directly without purifying it. As some villages are located on river and stream banks, they form the center of activities—for washing clothes, doing dishes, bathing, water for cooking and drinking—and these banks are also used for defecation, with some places culturally selected by the community. In some areas of dense, primary forest, bodies are not buried but left in coffins in the forests; when the body decays, the pollution is carried by rain to infect the water supply.

Research Results: EFP 12: Households build and use latrines (PFE-12W)

At the national level, access to improved sanitation facilities remains low, increasing from 8% to 14% of households from 1990 to 2011 (JMP 2013). Access is highest in urban areas; 69% of people in rural areas lack access to improved sanitation (JMP 2013). It is estimated that about 8.4 million people (39% of the population), particularly in rural areas, practice open defecation and that this is socially accepted (Sitan, 2014, MDGs, 2013). In the South, less than 2% of households have access to improved sanitation facilities (MICS 2013). Several factors discourage the use of latrines. These include: the costs of construction, inadequate maintenance, taboos against use, the sharing of toilets by male and female members of the family, low risk perception about the practice of open defecation, and improper disposal of children's feces. The situation in communities with CLTS programmes is different, with latrine use at about 50%.

Qualitative research indicates that people practice open defecation (by the sea, in forests, around the village) where people will not see them or because it is a place assigned by the community for this purpose. Some consider that doing one's business in a latrine is like doing it in the home. People do not think they are capable of building and using their own latrines, and latrines are not supported by community leaders or community agreements. Health workers and traditional chiefs are not convinced of the benefits, and do not use latrines themselves. People do not make a connection between open-air defecation and water quality with excrements carried by rainwater. Other barriers cited include lack of construction materials, unsuitable soil (sand, rocks), wood for flooring that will not be resistant to termites, lack of space for latrines (with regard to local land use and taboos). Even if latrines are available, families cannot afford toilet paper and may resort to using paper from school notebooks; by contrast, water from the river and leaves from the forest are free.

Half of the respondents (51%) reported that members of their families did not use latrines of any kind. Of those who used a latrine, 80% constructed the latrine themselves. Two thirds (64%) reported that they shared a latrine with other households. About 71% said they had received information about latrines, with the most common sources being:

Community agents - 49%

Health agents/workers - 40%

Radio - 36%

Local authorities (chief of fokontany) - 23%

Other potential sources of information (family members, traditional leaders, local organizations) were mentioned by less than 10% of respondents.

For respondents who believed that children should use a latrine, the mean age when they should start using one was four years old. Half did not think it mattered where a baby defecated, 22% thought that a baby should defecate outside the house, and 18% thought that a baby should use diapers.

80% of women reported using the family latrine when they were menstruating; 91% reported that they used a cloth during menstruation, 9% reported using disposable sanitary pads and the remaining 1% used tampons (usually a piece of fabric cut from old clothing), or something else. Most (87%) women reported washing the cloths that they used while menstruating.

C4D OPPORTUNITIES

Programme staff and C4D unit team members are best-placed to know what number and type of communication-related interventions have occurred, and have been successful, during past programming cycles. The role of the research team has been to aggregate, analyze and synthesize large amounts of quantitative and qualitative data and then present results that provide promising opportunities for immediate or near-future action.

The nine C4D opportunities presented in this next section are highly curated, representing a best-faith effort to determine what issues found in the data, in which regions, can be addressed through C4D interventions. The proposed activities do not always address what the data reveal to be the most intractable or widespread problems. This is because C4D is not always a stand-alone solution to some types of problems (see Individual decisions/behaviours and social norms—Categories of EFPs, above, and Annex B). In this sense, a given C4D intervention idea may address a lesser problem because it has greater chances of success of being addressed through communication.

Existing research studies, most of them standardized and highly rigorous (DHS and MICS data, for example), have identified programmatic areas needing attention; these were summarized in the literature review, and key points are noted in the relevant program sections. By providing here small-scale “pilot” interventions, deliberately limited in terms of scope and investment required, the aim is to to: 1) save time for and C4D and program staff by winnowing and analyzing large amounts of existing and new data to inform the proposed ideas; and 2) design manageable interventions, positioned as experiments, with shorter durations and some suggested basic measurement indicators and/or activities, (these can be considered illustrative, as there are many ways to measure any one intervention).

1: Nutrition

Less than half (46%) of the women surveyed sought information during their pregnancy. Midwives, health agents and community agents were the most frequently cited sources of information outside of family members. This suggests that a two-pronged approach for communicating about nutrition may be fruitful:

1. For “information seekers” (those who speak to service providers) capacity strengthening and easy-to-use conversation tools for service providers could be an effective channel for reaching pregnant women. Information-seeking women could also be encouraged to share the information received among neighbors and family members.
2. For those who do not actively seek information, the “peer sharing” described above could be one source of information. Additional channels for non-seekers of information could include radio spots and short radio dramas to provide key nutritional information, and to encourage all women and men to promote nutrition with neighbors and family members expecting children. Radio was cited by 16% of respondents and family by 40%.

2A: Breastfeeding

Given that the majority of women surveyed (99.9%) are convinced of the benefits of breastfeeding, there are two areas where C4D could support nutrition. These are:

1. Stressing the benefits of *immediate* breast feeding; and
2. Highlighting the importance of *exclusive* breast feeding.

This could be done with a catchy song (radio or at health clinics), that builds on the already-adopted behaviour, and explains how children can get more immediate and longer benefits if women make the “two small changes for better health.”

2B: Complementary feeding and continued breastfeeding

One way to engage mothers who have already adopted breast-feeding and who are interested in continuing good nutrition is to create opportunities for women to share tips and encouragement. The opportunities for discussion, idea-sharing and mutual support could take many forms, including cooking classes or recipe contests with low-cost supplemental nutrition options³¹, weekly discussion sessions and child “check-ins,” where children can be weighed, to track participation and results, and allowing mothers to see “proof of concept” that good nutrition can make a difference in their children’s health. The peer engagement strategy aims to motivate and engage women to help them follow through on a plan to continue breastfeeding and good nutrition. If many women, as a group, encourage each other to actively pursue good nutrition for their children, a positive social norm can begin taking shape. As the norm catches on, those who do not do everything possible (within their economic means) to consistently provide good nutrition will begin feeling pressure to do so.

3: Health

A key piece of data guides the C4D recommendation that follows:

- 1) 90% of respondents said they would prefer to deliver in a health facility to protect their health.**

When a lack of financial resources limits the number of health facilities where women can give birth, or limit women’s ability to access existing services, strengthening the capacity of untrained birth attendants could be a way to bridge the gap between services and clients. C4D is more often used as a tool to generate demand rather

31. Such as the locally-grown but not well known Moringa plan: http://www.zahana.org/Site_With_Pix/Moringa-in-Madagascar.html. See also, Azafady’s video on Moringa as “Laoky” sauce with rice <https://www.youtube.com/watch?v=WL2iL8x5DNU>

than a tool to improve service delivery, but in this instance, there is a need for quality, low-cost, and mobile service – all of which can be improved by strengthening the capacity of existing resources (traditional birth attendants).

4: Vaccination

A key piece of data guides the C4D recommendation that follows:

1) 98% of respondents agreed that vaccination was important

The responses on the perceived importance of vaccination and also sources of information for vaccination cited below suggest that a health-center-based C4D activity or tools could be used to promote completion of the vaccination cycle, rather than vaccination itself, which most community members already consider beneficial.

Among respondents, 91% reported that they had received information about vaccination. Among these, the most frequently mentioned sources were:

Health workers, posters and meetings (formations sanitaire) 55%

Family members 25%

Neighbors 19%

Community agents 52%

Radio 25%

Aiming to encourage completion of health service cycles among community members who have access to health clinics and have already used their services, provides a captive audience, and represents “lower hanging fruit” than attempting to persuade those having never accessed services.

The MERCI³² “memory helper” (aide memoire) from vaccination promotion is a good example of a simple one-page tool for health center personnel. It can serve as inspiration for developing a similar tool, made-for-Madagascar or for regions, using local terminology (see Fig. 4). Another tool, a “conversation card developed” by UNICEF Chad and Chadian government counterparts, is a job aid for health workers so that they can verbally explain the routine immunization schedule to low-literacy health-center clients (Fig. 5).

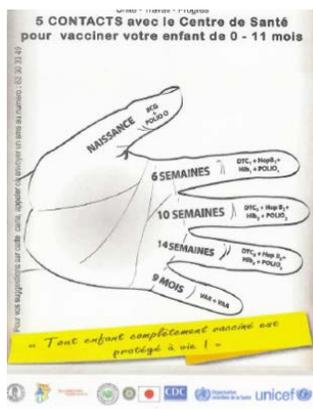
32. http://www.immunizationbasics.jsi.com/Docs/BASICS_MerciCard.pdfMoringa-in-Madagascar.html. See also, Azafady’s video on Moringa as “Laoky” sauce with rice <https://www.youtube.com/watch?v=WL2iL8x5DNU>

Fig 3. MERCI card (USAID/Basics/DRC)

AIDE MEMOIRE POUR L'AGENT DE SANTE	
COMMUNICATION AVEC LES MERE	
M ALADIE :	Informez la mère contre quelle maladie, elle ou son enfant ont été vaccinés
E FFETS S ECONDAIRES :	Informez la mère sur les effets secondaires possibles et lui dire comment agir
R ENDEZ-VOUS :	Preciser la date à laquelle elle doit revenir avec son enfant pour la prochaine vaccination
C ARTE DE V ACCINATION :	Recommander à la mère d'amener la carte de vaccination avec son enfant chaque fois qu'elle vient au centre de santé
I MMUNISATION C OMPLÈTE :	Rappeler à la mère qu'une seule ou deux vaccinations ne protègent pas son enfant. Chaque enfant doit être vacciné 5 fois avant l'âge de 12 mois.

Ministère de la Santé - FDC - PEV-LAFTE - USAID - BASICS - ONI - UNICEF

Fig. 4: Vaccination conversation card UNICEF/Chad



These simple one-page (or postcard-sized) tools are not designed to be persuasive communication messages aiming to directly raise awareness among community members, but rather are operational communication tools that help health center personnel **remember** key points or dates³³ to share in their conversations with clients. Additional operational communication tools, already employed for vaccination promotion and drop-out prevention/reduction in Madagascar³⁴ could be part of a package of tools made available to select sites for testing and adaptation to local needs/contexts.

33. See data on the phenomenon of parents/caregivers “missing the time for the vaccinations” in the pages that follow.

34. For an example of use of community based immunization records, search for dropouts through the “3 card file” system, Government of Madagascar (2014), The GAVI Alliance Annual Progress Report 2013, p. 14.

Complements to the operational communication tools for health workers might also be envisioned, informed by existing resources from Madagascar. As one illustrative (and possibly widely-known) example, the “Diploma” for completion of vaccination cycle developed for the Jereo Salama Isika project (1998-2002), can serve as inspiration for community-facing communication materials that help remind parents about important vaccination and inspire them to achieve completion³⁵.

Fig. 5: “Diploma” for completion of vaccination cycle



5: Education

Like the recommendations related to health, this C4D recommendation for education relates to “preaching to the converted” by initially focusing on the **completion** of primary school by children already enrolled in school. Designing for this population ensures that C4D interventions will not waste resources by aiming to generate demand where there is no supply, where distance is an issue, or where local schools are not affordable for parents. By starting with those already enrolled, there is both a captive audience (we know where to find these children and educators) and a demonstrated pre-existing commitment to education. As both education-related EFPs are category 3 (requiring additional resources), a pilot intervention should begin where resources already exist to increase the potential of C4D to make a difference. Study results also support the focus on retention (rather than enrollment) for the three regions. When asked about the topics of discussions about school with educators and community leaders, respondents listed: necessity of enrolling children (82%); advantages of enrolling children (71%). Only 26% cited the importance of **completing** primary school.

35. See: USAID (2001) Jereo Salama Isika, BASICS II (2004) Madagascar Immunization Report September 2001 – April 2004, p. 25, and also BASICS II (2004) Demonstrating Communication Impact: Madagascar Case Study, p. 27 (Annex)

Specific strategies for school retention could be gathered and vetted through a participatory “crowd-sourcing” (and child-friendly) process via a **contest mechanism**. A series of contests (after prototyping the idea at one site) would be an excellent way to generate dialogue as well as locally-proposed and implemented solutions related to the completion of primary school for already-enrolled children. Community members are often viewed merely as targets of development interventions, rather than as resources or agents of change³⁶. The contest mechanism flips this logic on its head by presuming that community members have good ideas and will be willing and motivated to share them – in other words, the assumption is that community members are both a resource and agents of change.

The primary benefits of the contest mechanism for generating ideas and inspiring action are five-fold:

- 1) A contest can generate dialogue on the topic of school retention as student teams conduct research and work collaboratively on their intervention design;
- 2) A contest can provoke press interest on the topic of school and can lead to “earned media” (free media coverage) on the subject, especially at the moment when winners are announced;
- 3) A contest will generate ideas and solutions that are rooted in local context and culture;
- 4) Contest submissions will provide a range of ideas (and additional research) at a fraction of the cost of a large intervention or a partnership cooperation agreement (PCA); and
- 5) A school-based contest invites the participation of children and adolescents, which is one of UNICEF’s core commitments to children³⁷.

6: Child Protection

A weekly Malagasy-language radio drama (using local dialects for some characters) dedicated to issues of child protection, including but not limited to the two protection-related EFPs, to be aired on local and community radio stations.

36. The language of “community as resources/agent” is borrowed from McLeroy et al., (2003) Community-Based Interventions American Journal of Public Health: April 2003, Vol. 93, No. 4, pp. 529-533; <http://www.scenariosafrica.org/>

37. UNICEF (2010) Core Commitment to Children in Humanitarian Action, See p. 7, which encourages “the participation of children, adolescents, women and affected populations, including in the analysis, design and monitoring of humanitarian programmes.”

When 80 of children (2-14 years) have experienced some form of violent discipline, as is the case with Madagascar (see data in section brief), the phenomenon is not only widespread – it is a social norm. Norms are difficult to change, because of the sheer number of people agreeing with them, and also the long-standing and thus entrenched nature of most norms. A message, a poster, a 30-second public service announcement – these are all doomed to fail in the face of a social norm. The drama and emotion lacing entertainment education (EE) scripts (whether radio or TV), and the family- and peer-level dialogue they generate, show more potential.³⁸ For one, listeners of an EE radio novella can hear about other people’s problems and arguments – they don’t have to feel personally implicated. Further, a radio novella is entertaining, unlike most PSAs and pamphlets: it captures attention, and makes listeners care about the characters and what happens to them. There is a substantial amount of social science evidence and theory³⁹ to support EE as an effective (although not usually fast or efficient) way to promote social and behaviour change. Madagascar EE models already exist, such as Search for Common Ground’s radio soap, *Vohidrazana* (Village of the Ancestors).

If deemed successful in generating dialogue and interaction on protection-related themes, the radio programme can be easily scaled up through distribution of recordings of the episodes. There is a wide range of interaction mechanisms⁴⁰ available, both low and high tech, to help amplify dialogue related to subjects raised on the radio broadcast. These include: listening clubs, call-in shows, SMS trivia quizzes or polls (via UNICEF’s Rapid Pro 2.0 platform or another open-source software, like Frontline SMS), U-Report (also via Rapid Pro 2.0), and even old-fashioned letters, which can be received at stations and read on-air prior to or after broadcasts. Building in some sort of feedback loop to hear from listeners is essential for learning the valuable lessons that can help convert the intervention into a scalable, more widely broadcast program.

One of the greatest benefits of EE is the ability present a wide range of issues, to tailor scripts for language and context, and to adapt storylines on an ongoing basis – according to local formative research or program feedback. To cite examples from the study data, the radio novella could address transactional sex, under-age sex, domestic violence, corporal punishment, and also issues not cited in the data such as birth registration or child labor.

38. On the subject and impact of entertainment education, see: Pop Culture with a Purpose: Using Entertainment Media for Social Change; and Entertainment education broadcasts, social mobilization and ground delivery in Rural India.

39. See, for example, Singhal and Rogers (2002). A theoretical agenda for Entertainment Education, *Communication Theory*, pp. 117-135.

40. For some examples, see Frontline SMS Blog (2011) Communication for social change: How to turn a stone into a sponge (it’s not magic, it’s design!)

7: WASH

The WASH-related opportunity is the use advocacy to address material barriers to hygiene (soap) and health (water treatment products) in targeted areas through Corporate Social Responsibility (CSR) mechanisms⁴¹ already existing in Madagascar⁴². While corporate donations are clearly not a sustainable source of support (they are the equivalent of giving the fish rather than teaching to fish), specific “in-kind” donations – soap from UNILEVER, for example – may help certain community members who are not the poorest-of-the-poor develop good handwashing habits and experience improvements in health that would lead to future soap purchases once in-kind donations are exhausted. One could make the argument – again using UNILEVER as an example – that today’s CSR beneficiaries could be tomorrow’s paying customers. The WASH section could also commit to collaborating with the strategic communication section to generate press coverage of any CSR donations, to encourage other potential corporate partners to join UNICEF in its efforts. Imagine special-edition soap with the “key moments for hand-washing” printed on the packaging, benefitting entire villages, receiving coverage in regional or national news outlets.

The cost of advocacy, in terms of time and effort, would be minimal. The key activity would be in crafting tailored pitches to CSR units in various corporations. An alternative but more time-consuming approach to advocacy is to develop CSR correspondence/appeals/proposals in collaboration with specific high-need communities, so that the art of resource mobilization is taught to communities, who can later (ideally) advocate for themselves. The benefit of a slower, participatory approach to CSR is that communities could use learned advocacy skills to also lobby the government for specific services and/or infrastructure that is lacking.

8: Investments in media

In Madagascar’s current economic situation, investments in print, television and Internet would bring limited returns, reaching only a small, mostly urban audience (even with group viewing situations). As already noted, media, including community radio, cannot be considered by themselves as drivers of change because attitudes and behaviours exist in a complex and fluid environment; investments in both traditional and community media need to be carefully considered in the broader context of programme interventions.

41. UNICEF/Madagascar (undated) : “CHILDREN ARE EVERYONE’S BUSINESS” Assessing CSR in Madagascar, states: “87% of the companies were generally in favour of engaging in CSR activities for children, in particular in school construction, WASH and fight against child labour..” (p. 1)

42. See Sumitomo Corporation CSR in Madagascar (one WASH-related project) Building relationships of trust with local communities through the Ambatovy Project (Case study 4).

Despite its partial reach, especially in rural areas and to those without education, radio offers (of all media) the best potential for C4D interventions. Over the last three years, Search for Common Ground (SFCG) has undertaken several projects using radio to promote peace and social cohesion and reduce tensions and violence, especially among young people.⁴³ An evaluation of the Andrew Lees Trust's *Projet Radio* (ALT/PR) in southern Madagascar showed that the initiative achieved some success in changing and enhancing knowledge and attitudes on topics including HIV/AIDS, family planning, maternal and child health, environmental issues, social and administrative issues, and gender inequality.⁴⁴ Radio also reportedly had a positive impact on the uptake of health services, enrolment in literacy classes, construction of environmentally-friendly woodstoves, tree-planting, agricultural yields, and awareness of strategies for poverty reduction through income generation and community associations. For both SFCG and ALT/PR, building partnerships with local and community stations for production, distribution and broadcast, the use of local dialects, and the blending of information and entertainment formats, such as SFCG's radio soap, *Vohidrazana* (Village of the Ancestors), have helped to make the programming engaging and relevant.

The team proposes UNICEF expand its existing partnership with SFCG and work with other agencies and NGOs to support EFP-related programming produced by local stations. Although most programming will (for reasons of cost) likely be informational in format (talk shows and call-ins), some entertainment programming (music and EE radio novellas) would likely increase reach and impact. It is also important not to consider radio in isolation; most successful C4D interventions combine radio programming with community-based activities or education. As noted in the evaluation of ALT/PR (and as SFCG has demonstrated), use of local producers and dialects is important.⁴⁵

Because national radio has the widest reach, the team recommends UNICEF approach the government to explore how to increase and improve the quality of programming on health, nutrition, education and child protection. Qualitative research suggests that most national radio coverage is event-based, and does not examine health or social issues in depth. The team also proposes that C4D interventions using radio include a research or measurement component, whereby impact can be assessed by comparing changes in attitudes and behaviours in districts where radio was used with changes in districts where people were not exposed to radio.

43. Search for Common Ground, Madagascar Projects, <https://www.sfcg.org/tag/madagascar-projects/>

44. UNFPA (2012). Metcalf, L., Harford, N., & Myers, M. (2007). The contribution of radio broadcasting to the achievement of the Millennium Development Goals in Southern Madagascar.

45. UA's qualitative research includes the compilation of a glossary of dialect from communities in the three regions.

In Madagascar’s current economic situation, access to radio will probably not expand quickly, especially in rural areas; therefore, interventions using radio may not reach remote areas that include the poorest and most vulnerable populations. This presents a challenge for UNICEF’s equity mandate. Radio represents a relatively fast and cost-efficient way to reach urban and some rural populations, but other forms of communication (interpersonal and small-group), which reach remote populations – and so help to address issues of equity – are also more time-consuming and expensive. The recent phenomenon of circulating music or other content on secure digital (SD) cards and flash drives, or transferring content by Bluetooth (“side-loading”)⁴⁶ provides an opportunity to reach areas falling outside the broadcast areas of radio stations.

One option is to try to bridge the gap between media ‘haves’ and ‘have-nots.’ This could involve providing wind-up and/or solar-powered radios to communities that lack radios. (Battery-powered radios are cheaper, but users may not be able to afford new batteries). Further study would be needed to decide how to implement such a solution, but experience from other countries indicates that the first step is to provide free or low-cost radios to public institutions, including schools and health centers. Radios could be made available at low cost to churches and other groups. However, technological support should be part of broader, community-based interventions.

The next section outlines a complement to mass media--interpersonal communication through community participation, including opinion leaders and other community members of influence.

9: Community participation

Both the quantitative and qualitative data indicate that community members in the three regions have a range of local influencers and communication channels, including events, markets and other meeting points. Data indicating that those who claim a religious affiliation are more likely to adopt positive health behaviours than those who profess to have no religion suggest that churches and other places of worship are an additional gateway where information and practical exercises to promote EFPs can be integrated.

46. Kirkley, C. (2015) “Music from cellphones,” <http://thepiratebook.net/music-from-cellphones/>

In contrast to the opportunities presented by schools and churches, respondents express resistance to information coming from outsiders (*gasygasy*) and information that is perceived as overly technical. The implication for designers and implementers of C4D interventions is that any and all information related to EFPs should pass through a filtering and localization process, allowing community members to adapt content and inviting them to provide and circulate EFP-related information using local resources. Even a fully formulated (unchangeable) communication product such as a pre-recorded educational song can be introduced by community members themselves through local radio, blue-tooth or SD card trading (“side-loading”), or word of mouth sharing at events such as the *havoria* or *tsaboraha* and other popular gatherings. In other words, the quality and trustworthiness of the person introducing the information are just as important as the information itself.⁴⁷

When local actors and cultural practices are viewed as a resource, rather than as a barrier, there is great potential for creating additional gateways for EFPs to supplement schools and places of worship. Approaching community members as resources, agents of change, and naturally-occurring “units of solution”⁴⁸ can be a fruitful first step for C4D and other programmatic efforts. Participation takes time, and can slow down interventions and the turn-around time for results, but community involvement has much greater potential for true ownership and sustainability.

47. Le Cardinal, G., Guyonnet, J.-F., Pouzoullic, B., 1999, 215-226, « Construire la confiance, une vertu nouvelle pour sortir du désir mimétique et de la violence », *Communication et organisation*, n° 16, 2e semestre.

48. McElroy, et al., (2003) *Community Based Interventions*, American Journal of Public Health (Vol 93, No. 4), p. 530.

FUTURE RESEARCH

- 1** A focused qualitative study on specific issues identified by quantitative that need further investigation (see “Limitations of Research, above).
- 2** A study of the relationship of health workers (vaccinators, health agents, trained midwives) to communities, and how they communicate with patients (researching service-side factors to improve their engagement with communities). This could include a study of the perceptions of pregnant women of what they consider to be a “normal” birth in order to better understand how complications are taken into account by family members, medical staff and traditional healers.
- 3** Human-centered design (HCD) research can be used to gain deeper understandings of existing practices related to EFPs, with WASH themes in particular providing a good starting point. HCD research includes a step for “co-creation” where community members can participate in the design process, suggesting potential solutions that are adapted to their needs and contexts.

Annex A

Project timeline and context

DATE	ACTIVITY	OUTPUTS/RESULTS
September 2014-April 2015	Planning meetings, literature review (previous research studies), work plan, methodology (<i>Protocol de L'Etude</i>), questionnaires and research protocols.	Work plan, literature review, drafts of quantitative and qualitative methodologies, draft French versions of questionnaires.
January-March 2015	Capacity building on research; compilation of research articles; research database access.	Online sessions on research topics for UA faculty and post-graduate students, website established for project documents.
April 2015	Human subjects research clearance.	Research methodology approved by Institutional Research Board, Metropolitan State University, St. Paul, USA
May 18-22, 2015	Workshop (at Fenerive Est) with INSTAT team leaders to finalize questionnaires and protocols for field data collection.	Malagasy versions of questionnaires ; <i>Protocol de L'Etude</i> revised ; questionnaire pre-test conducted.
March-July, 2015	Development of topics, methodology and tools for qualitative research study.	Synthese de la note methodologique, outlining research principles and methods, criteria for selection of field sites.
July 20-26, 2015	Qualitative research methods workshop, Toliara, for UA field research teams.	Sample data collection in districts of Toliara; protocols for field research; forms and templates for organizing and reporting qualitative data.
August 5-8, 2015	Workshop on quantitative data analysis, University of Witwatersrand.	Procedures for data entry, reporting and analysis.

DATE	ACTIVITY	OUTPUTS/RESULTS
August-September 2015	Qualitative field research in six communities in three regions.	Data (field notes, community maps, FGDs, interviews, photographs) uploaded
August 9-September 22, 2015	Quantitative data collection by 12 teams in three regions.	Target of 1,620 completed questionnaires for each group (total of 3,240) for three regions
September 21-24, 2015	Workshop on qualitative data analysis, including use of Atlas.ti software.	UA faculty/students ready to do thematic analysis.
September 5-October 31, 2015	Quantitative data capture using CSPro, data cleaning.	Data from questionnaires captured and made ready for statistical analysis
November 1-30, 2015	Analysis of quantitative and qualitative data.	Preliminary report from INSTAT on quantitative data.
November 30-December 4, 2015	Presentations to UNICEF and steering committee; research symposium	Sharing of research data; feedback for final report.
December 5-31	Multivariate analysis of quantitative data; merge with qualitative data and previous research.	First draft of final report with results and recommendations for C4D interventions
January 1-February 29, 2016	Revisions of final report based on comments from UNICEF, UA, International Reference Group and Steering Committee; translation from English to French; conference presentation on vaccination	

The original timeline for design, implementation and analysis of the research had to be adapted due to unexpected delays outside the control of the research consortium. This delay resulted in the simultaneous collection of quantitative and qualitative data, which was not ideal. When sequenced rather than simultaneous, qualitative and quantitative methods are complementary and allow for richer, deeper results.⁴⁹ If a quantitative survey, for example, comes before qualitative interviews, the qualitative portion can follow up on the quantitative results to inquire about the “why behind the what.” Interviews or focus groups prior to quantitative research can also be useful for designing a more detailed and nuanced survey instrument.

49. Morgan, David (1998). Practical strategies for combining qualitative and quantitative methods: Applications for health research, *Journal of Qualitative Health Research*, pp. 362-376.

Annex B

Analytical categories and concepts

To establish a common vocabulary for this report, the team proposes a set of analytical categories and concepts.

Supply and demand-side determinants

Constraints and bottlenecks to the uptake of a given behaviour or service can stem from “demand-side” determinants such as the lack of knowledge or motivation on the part of a community member, and can also be the result of a “supply-side” factor such as poor service, absence of supplies (e.g. vaccines or water purifiers) or lack of infrastructure (e.g. a health center). For vaccination, for example, there are three essential components: vaccine (supply), vaccinator (service) and vaccinated (client). When any one of these elements is lacking, vaccination will not occur. From a C4D perspective, “generating demand” can be pursued where and when the other two elements of the vaccination equation are present. Wisely choosing the site of an intervention, so that demand is generated where services and supplies exist, ensures that communication is not wasted, and does not lead to frustration on the part of community members.

UNICEF’s Monitoring for Results Equity System (MoRES)⁵⁰ provides additional terminology for considering the range of determinants that can enable or constrain behaviour and social change. Areas for potential bottlenecks range from 1) enabling environment (social norms, legislation/policy, etc.), 2) Supply, 3) quality (of service), and 4) demand. C4D can be employed to affect three of the four determinant areas, through advocacy, social mobilization and behaviour change communication –with only the area of “supply” being largely immune to communication influence.

Advocacy is often most useful on the “outer ring” of the ecological model (Fig. 2), for influencing decision makers, policies and legislation at the “enabling environment” level. **Social mobilization** can help trigger or inspire *community-level* action that is essential when problems are of a communal nature, such as sanitation (latrines) and vaccination, where individual decisions to defecate in the open or to *not* vaccinate a child for measles can have negative consequences for neighbors and the larger community.

⁵⁰. Formative Evaluation, UNICEF’s Monitoring Results for Equity System MoRES: From evidence to equity? (2014), p. 6

Fig. 6: Three strategies for communication for social and behavioural change.



Behaviour change communication (BCC) aims to promote change at the individual level, with community members (parents, for example) and/or service providers (vaccinators, or other health clinic staff for example). BCC works best when individuals can fully control their own actions, as with the decision to quit smoking, the act of boiling unclean drinking water, or providing respectful service to health clinic clients. When behaviours to be addressed, or actions to be promoted, are related to deeply-entrenched social norms, longer-format C4D interventions are generally more effective, especially when they generate dialogue that can gradually “chip away” at tightly held beliefs (before a norm can change, one has to be able to at least talk about it – which isn’t the case for some norms related to “taboo” behaviours – like domestic violence in some countries). The difference between individual decisions/behaviours and social norms is outlined in the section that follows.

Individual decisions/behaviours and social norms

When considering how to promote a given EFP, it is important to determine whether the behaviour, action or decision to be promoted is within the control of the individual, or whether individuals perceive they have less autonomy, because the action or behaviour is highly influenced by local social norms. We define social norms as a system that “specifies what is acceptable and what is not in a society or group...often meant to represent a solution to the problem of attaining and maintaining social order.” A social norm is likely in play if a community member asks themselves, with concern: “What will others in the community think if I act in this way, or make

this decision?” If I choose to stop smoking (individual decision) I may not face a social consequence but if my daughter is not married by a specific age (social norm), there may be some judgment on our family.” The difference between an individual decision and a social norm can have implications for C4D intervention designs. A deeply entrenched social norm may necessitate longer-duration communication formats, such as a multi-year radio serial drama, to generate the level of dialogue that can help chip away at norms over time. The promotion of a one-time behaviour such as birth registration, on the other hand, might be addressed through short-duration information-only approaches, via leaflets or SMS blasts. Knowing whether a C4D intervention is meant to address a behaviour or a norm can help avoid the waste of time and money that can occur when there is a mismatch between problem and approach.

Direct and indirect communication impact

Just as a deeply entrenched social norm will be more difficult to influence than an individually-controlled behaviour, some EFPs are impossible to address with communication alone, i.e., without additional material resources. For example, a communication intervention promoting proper nutrition, or hand-washing with soap, will not be effective if people are too poor to buy nutritious foods or soap. The promotion of school enrollment and retention requires that a school be open, geographically accessible, and with fees local parents can afford. Communication can have direct impact when additional resources are not required for a specific practice to be performed successfully. Exclusive breast feeding, biology permitting, is a practice most mothers can control without additional resources. Parents do not need material resources to avoid disciplining their children with violence; communication has the potential to have an impact, even if violence against children is an accepted social norm (it just may take longer when a given practice is an accepted norm). Fig 2 (page 16) plots the 12 EFPs along two axes, categorized as either within the control of the individual, or as a social norm, which is subject to the perceived judgement of others within the community. The EFPs are further categorized as being able to be directly impacted or influenced by communication alone, or as having an additional material resource or barrier affecting the possibility of action. The EFPs that are both individually controlled AND directly influence-able by communication are the “lowest hanging fruit” for potential C4D impact. Tougher candidates for immediate C4D influence are the EFPs that are entrenched social norms, and/or require additional material resources (such as soap, or supplemental food) or have material/geographic barriers (such as access to schools, or the existence of a health clinic).

Frequency of action

An additional factor that can affect the potential influence of communication is the frequency and/or regularity of action that is being promoted. An EFP which must be done once (enroll a child in school) is different, from a communication perspective, from one that needs to be done repeatedly or daily. A one-time action might be promoted through an “event-based” activity, such as an “enrollment festival”, whereas something that needs to be done *daily* might require a visual prompt (“wash hands!” sticker) or repeated radio announcements and catchy phrases. With repeated practices, such as hand-washing, communication would aim to promote habits and new, positive social norms.

Checklist for where/when to proceed with a C4D intervention

Below is a set of questions – a checklist - which outlines conditions that can facilitate (or hinder) the implementation of a C4D intervention. A C4D intervention design, plan or strategy is the road map to be followed to arrive at a specific objective. This report contains several potential paths to increasing uptake of essential family practices. But the path and the roadmap alone are not sufficient to ensure successful arrival. To continue the “journey and destination” analogy, one also needs resources: the vehicle and petrol for the journey, and a driver. The vehicle may be an implementing partner (government agency or community-based organization) and the petrol could be funding or in-kind goods (like donated SMS messages). The driver is someone with sufficient technical experience to oversee and manage the journey.

Attempting 12 journeys (one for each EFP) at one time would require a great deal of resources, and the chances of success would be diminished. Beginning with a few well-equipped vehicles – or even one vehicle - is better than an entire fleet getting lost or running out of petrol short of the finish line.

The evidence base that informs the suggested recommendations is unlikely to change suddenly; and thus interventions can be timed strategically, they can be staggered, for example, to allow for sufficient resources to be gathered, and for capacity to be strengthened over time, with lessons learned along the way to be converted into ongoing improvements.

Key questions

1. Is the intervention a priority for the sections and/or country office? If yes,
2. Are there sufficient C4D support and resources (staff and funding) to help design and monitor the intervention? If yes,
3. Are there sufficient section/programme support and resources (staff and funding) to proceed with intervention? If yes,
4. Is there a partner and/or partnership agreement allowing for on-site implementation? (i.e., local “boots on the ground”) **If yes, to all of the above: proceed with planning, design and implementation.**

BONUS: If there a government partner/counterpart ready and willing to collaborate (for ownership, sustainability, and local expertise/resources)

BONUS: If the intervention measurable, in terms of implementation/monitoring and impact/evaluation (for lessons to be incorporated if/when going to scale and to generating practice-based evidence) .

If “no” to any of the above, the conditions for success of the intervention may not be ideal, and thus postponement, or even abandonment, of the C4D intervention should be considered. The art of designing and implementing a C4D intervention is as much about the “when” and “whether” as it is about the “what” and “how.”

Annex C

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