Save the Children

FIRST 1,000 DAYS PROJECT: Barrier Analysis Report and Social and Behaviour Change Strategy

SHEFA, SANMA, AND PENAMA PROVINCES, VANUATU

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CONTENTS

ACRONYMS

BA	Barrier Analysis
DBC	Designing for Behaviour Change
EHA	Essential Hygiene Actions
ENA	Essential Nutrition Actions
IYCF	Infant and Young Child Feeding
PLW	Pregnant and Lactating Women
SBC	Social and Behaviour Change

INTRODUCTION

Background

With support from the Australian Government Department of Foreign Affairs and Trade (DFAT) through the Australian NGO Cooperation Program (ANCP), Save the Children is implementing the First 1,000 Days project from 2017-2021. The goal of the project is to reduce stunting by improving the health and nutrition of pregnant and lactating women (PLW) and children under two years of age. Project success will be measured by the following three outcomes:

1. Improvements in the knowledge, practice and behaviour of targeted PLW and caregivers on issues related to maternal nutrition, infant and young child feeding (IYCF) and hygiene
2. Evidenced community action plans for improving (or fundraising for) the community enabling environment for the above areas
3. Project-derived evidence and policy recommendations have been considered for adoption by National health policy makers

Outcome 1 is specifically focussed on increasing the adoption of evidence-based, high impact health, nutrition, and hygiene actions[1] by pregnant and lactating women and caregivers of children under two year of age. Save the Children's baseline household survey identified current coverage of essential nutrition actions among the target population as follows:

Essential Nutrition Actions	Baseline Value
Infant and Young Child Feeding	
1. Children are only given breastmilk until they are 6 months old	69%
2. Children continue to be breastfed until they are 23 months old	50%
3. Children who are not breastfed are given milk to drink at least twice a day until they are 23 months old	8%
4. Children above 6 months are fed a variety of different kinds of food everyday: fresh fruits and vegetables (especially those rich in Vitamin A such as ripe papaya, kumala, or pumpkin), meat or fish, eggs, and nuts	51%
5. Children above 6 months are fed at least three times throughout the day	57%
6. Children with diarrhoea are offered more to drink (including breastmilk) than usual	39%
7. Children with diarrhoea are fed at least the same amount of food (including breastmilk) or more than usual	33%
8. Children with diarrhoea are given ORS or coconut water to prevent dehydration	53%
Child Healthcare	
9. Children receive all immunisations by the time they are 12 months old	84%
10. Men and women make decisions together on matters pertaining to their child's healthcare	22%
Maternal Health and Nutrition	
11. Pregnant women attend antenatal care at least four times during their pregnancy, with the first visit taking place during the first trimester	86%
12. Men accompany their wives to antenatal care	17%
13. Pregnant women take iron folic acid supplementation for at least three months during their pregnancy	88%
14. Pregnant women receive help from husbands or other adult family members with household chores (cooking, cleaning, childcare, collecting water or firewood, work in the garden) during their pregnancy	79%
15. Mothers and fathers practise birth spacing by using a modern form of contraception	41%
16. Mothers – and especially pregnant and lactating women – eat a variety of different foods everyday: fresh fruits and vegetables (especially those rich in iron such as island cabbage), meat or fish, eggs, and nuts	22%

[1] World Health Organization. 2013. "Essential Nutrition Actions: Improving Maternal, Newborn, Infant and Young Child Health and Nutrition." http://www.who.int/nutrition/publications/infantfeeding/essential_nutrition_actions/en/

Water, Sanitation, and Hygiene	
17. Caregivers of young children wash their hands with soap at the five critical times: before preparing food, before eating, before feeding a child, after using the toilet, and after attending to a child who has defecated	24%
18. Caregivers dispose of their children's faeces by placing into rubbish pit or toilet / sink connected to drainage system	43%

Justification

Social and behaviour change is fundamental to achieving improvements in the targeted practices above. The First 1,000 Days project design includes the following priority activities to be implemented at the community level:

- Establishment and facilitation of support groups of mothers, fathers, grandmothers of children under two to share key messages and facilitate supported behaviour change
- Participatory community action planning, whereby community stakeholders identify key issues to maternal and child nutrition and develop and implement community-driven solutions

Formative research is required in order to tailor project activities and messages to ensure their relevance to the target group. Save the Children selected Barrier Analysis (BA) as the formative research tool to develop the project's social and behaviour change strategy, through the development of Designing for Behaviour Change (DBC) frameworks for each studied behaviour[2].

While the First 1,000 Days project will promote all 18 key behaviours listed above, project staff prioritised the following three behaviours for formative research:

1. Caregivers of children age 6-23 months give their child at least two servings of fruit or vegetables each day
2. Caregivers of children 0-23 months wash their hands with soap at least two of five critical times each day
3. Mothers of children 12-23 months continue to breastfeed their child

Criteria for selection of these three behaviours included their low baseline value relative to other behaviours measured, relative impact of the behaviour on preventing undernutrition, and the desire to further understand factors influencing uptake of the behaviour.

[2] Kittle, Bonnie. 2013. A Practical Guide to Conducting a Barrier Analysis. New York, NY: Helen Keller International.

Methodology

Overview

The Barrier Analysis survey is a formative research method that identifies determinants - barriers and enabling factors – that influence adoption of specific behaviours by a target group in a project area. The following determinants are assessed through a Barrier Analysis survey:

Determinant	Definition
1. Positive consequences	What positive things the individual believes will happen as a result of implementing the behaviour (advantages)
2. Negative consequences	What negative things the individual believes will happen as a result of implementing the behaviour (disadvantages)
3. Self-efficacy	An individual's belief that he / she has the knowledge and skills to implement the behaviour
4. Social norms	The perception that people close to the individual think he / she should implement the behaviour
5. Access	Degree of availability of the products or services needed to implement the behaviour
6. Cues for Action	The ability of an individual to remember to implement the behaviour
7. Susceptibility	An individual's perception of how susceptible they are to the problem the behaviour is meant to address
8. Severity	An individual's perception that the problem (which the behaviour is meant to address) is serious
9. Action Efficacy	An individual's belief that by practising behaviour one will avoid the problem (which the behaviour is meant to address)
10. Divine Will	An individual's belief that it is God's will that the problem exists and that they are powerless to overcome it
11. Policy	Laws or regulations that affect access to products and services or regulate behaviours
12. Culture	History, custom, lifestyle, and values of a self-defined group which may influence implementation of a behaviour
13. Universal motivators	Factors found to motivate most people, irrespective of other variables

The Barrier Analysis methodology seeks to identify the specific determinants that differ significantly between 'doers' and 'non-doers' of a particular behaviour, and to tailor project behaviour change strategies and approaches to address the determinants identified.

Objectives

The objectives of the Barrier Analysis were to:

1. Understand the determinants influencing adoption of the following three behaviours in the project area:
   - Caregivers of children aged 6-23 months give their child at least two servings of fruit or vegetables each day
   - Caregivers of children aged 0-23 months wash their hands with soap at least two of five critical times each day[3]
   - Mothers of children aged 12-23 months continue to breastfeed their child

[3] Note that the ideal behavior to be promoted by the project is handwashing at five critical times. However, in order to find enough Doers and Non-Doers, the project decided to 'relax' the behavior measured in the survey to at least two of five critical times in the previous 24 hours.

2. Utilise findings to develop project-specific DBC Frameworks, which will answer the following questions:
   - Which are the most important determinants influencing adoption of the behaviour by the priority group?
   - Which strategies are needed to address the determinants?
   - Which activities will be implemented in support of each strategy?

Survey Tool Development

The standard Barrier Analysis questionnaire was adapted for the three behaviours[4]. Project staff translated an English version of the questionnaires into Bislama ahead of the training; and the translation was then reviewed again in-depth with the survey team during the training. Questionnaires were then printed and provided to each Provincial team. A copy of the questionnaires in English are attached in Annex A.

Survey Teams

Save the Children's Health Technical Advisor in Vanuatu served as the Study Lead. Project staff previously trained in Essential Nutrition and Hygiene Actions (ENA / EHA) and the DBC methodology served alongside enumerators that were recruited for data collection for each province. All enumerators had previous experience working as enumerators in the project's household survey, or as peer educators for previous health and nutrition interventions. Survey teams participated in a one-day training, which included an overview to the methodology, in-depth review of the questionnaire, identification of respondents for each questionnaire, sampling, pilot testing of questionnaires, and logistics.

Sample Size

As per the standard Barrier Analysis methodology, the minimum sample size for each behaviour is 45 Doers and 45 Non-Doers. Shefa and Sanma Provinces had a target of 18 Doers and 18 Non-Doers for each behaviour, while Penama Province targeted 9 Doers and 9 Non-Doers for each behaviour (due to the smaller target population in Penama).

Respondents varied by questionnaire, based on the behaviour statement for each:

1. Dietary Diversity: Any caregiver (mother, father, or grandmother[5]) of a child 6-23 months
2. Handwashing: Any caregiver (mother, father, or grandmother) of a child 0-23 months
3. Continued breastfeeding: A mother of a child 12-23 months

Convenience sampling was used across both urban and rural locations within each Province, and each respondent was only eligible to complete one questionnaire. The actual sample size for the three surveys was as follows:

Survey	Province	# Doers	# Non-Doers	# Total Respondents
Dietary Diversity	Shefa	23	20	43
	Sanma	20	19	39
	Penama	9	9	18
	Total	**52**	**48**	**100**
Handwashing	Shefa	20	21	41
	Sanma	22	21	43
	Penama	9	9	18
	Total	**51**	**51**	**102**
Continued breastfeeding	Shefa	19	20	39
	Sanma	18	20	38
	Penama	9	9	18
	Total	**46**	**49**	**95**
Overall Total		**149**	**148**	**297**

[4] To access standard Barrier Analysis questionnaires, see: Kittle, Bonnie. 2013. A Practical Guide to Conducting a Barrier Analysis. New York, NY: Helen Keller International.

[5] These categories of caregivers were prioritized as the project will implement a support group approach targeting mothers, fathers, and grandmothers

Data Collection and Analysis

Data was collected from 11-22 June 2018 in all three Provinces. Initial screening questions verified participants' eligibility to the survey. Project staff managed a tally sheet how many Doer and Non-Doer had been sampled already and once the quota for one of these groups was fulfilled, they instructed the data collectors to only interview eligible participants from the other group.

In the week following data collection, project staff collectively coded qualitative answers into agreed categories and frequencies were generated for each of the generated categories. Simple frequencies were recorded for all pre-coded (closed-ended) questions. Frequencies were initially recorded on flip chart paper, and were then entered into the standard BA MS Excel tabulation template[6] which calculates odds ratio and *p* value (significant at $p < 0.05$), including automated interpretation about the likelihood of Doers vs Non-Doers mentioning a particular response.

Ethical Considerations

The survey adhered to the Australian Council for International Development *Principles and Guidelines for Ethical Research and Evaluation in Development 2017*. Enumerator training included a two-hour session on child safeguarding, which the field Program Manager facilitated.

During the survey, enumerators read an informed consent script to each survey respondent prior to administering the questionnaire, which outlined the purpose of the survey, voluntary nature of survey participation, and confidentiality of all responses. All respondents provided verbal consent prior to participating in the survey. All data collected was anonymous.

Limitations

The Barrier Analysis sample size was split among all three Provinces; however, as the minimum sample size for any study is 45 Doers and 45 Non-Doers, it is not possible to disaggregate results by Province (Provincial-level disaggregation would only be possible by conducting a separate study in each of the three Provinces, with 45 Doers and 45 Non-Doers in each). Similarly, for dietary diversity and handwashing behaviours, respondents could have been the child's mother, father, or grandmother. It is possible that each caregiver faces unique motivating factors and barriers to practising these behaviours; however, disaggregation of results by caregiver type is not possible for sample size considerations listed above.

[6] Accessed June 2018 from: http://www.caregroupinfo.org/docs/BA_Tab_Table_Latest.xlsx

RESULTS

The full tabulation of results, including frequencies of all responses mentioned by respondents, is included in Annex B. Note that the BA methodology focuses on *differences* in responses between Doers and Non-Doers, not the most common response provided by any group. This section reports only on statistically significant responses, which are those that have implications for programming.

Child's Dietary Diversity

Significant determinants influencing whether caregivers of children 6-23 months fed their child at least two servings of fruit and vegetables each day were positive consequences, negative consequences, self-efficacy, access, susceptibility, and severity. No responses representing barriers by Non-Doers were found to be significant determinants of behaviour.

Summary of Findings: Child Dietary Diversity
Doers believe that feeding their child at least 2 servings of fruits and vegetables everyday **keeps the child healthy** and **prevents illness**
It is easier for Doers to feed their child at least 2 servings of fruits and vegetables everyday if they **have access to a market and / or their own garden**

Positive Consequences

Doers were 3.6 times more likely than Non-Doers to believe that feeding their child at least two servings of fruits and vegetables each day would prevent illness ($p < 0.01$) and 2.8 times as likely to believe the practice would keep their child healthy ($p < 0.05$).

Negative Consequences

Doers were 9.3 times more likely than Non-Doers to report the child getting diarrhoea ($p < 0.001$) and 4.1 times as likely to report the child getting a cold or cough ($p<0.05$) as negative consequences of feeding their child fresh fruits and vegetables every day. While these perceived barriers are statistically significant, they were reported by Doers, suggesting the barriers were not strong enough to keep them from implementing the target behaviour. Therefore, these barriers will not be addressed under the project's DBC Framework.

Self-Efficacy

When asked, "what makes it easy to feed your child at least two servings of fruits and vegetables each day," Doers were 3.7 times as likely than Non-Doers to respond that access to a local market ($p < 0.01$) and 3.5 times as likely to respond that access to a garden ($p < .05$) makes it easy. Doers were also 13.2 times as likely to report that "nothing" makes it difficult to feed their child at least two servings of fruits and vegetables everyday ($p<0.001$)

Access

Doers were 2.8 times more likely than Non-Doers to report that it was not hard for them to access fruit and vegetables ($p < 0.05$). This finding is consistent with the responses under self-efficacy, which suggest that access to local markets and gardens enable easy access to fruits and vegetables.

Susceptibility

Doers were 2.9 times more likely than Non-Doers to respond that it was "not likely" that their child may not grow well in the coming years ($p<0.05$). This may be because the Doers were already implementing the target behaviour and, as reported under Positive Consequences, believed that feeding their children fresh fruits and vegetables each day would keep the child healthy. Therefore, this potential barrier (belief that the child is not susceptible to malnutrition) will not be addressed under the project's DBC Framework.

Severity

Doers were also 4.4 times more likely than Non-Doers to report that their child growing well would not be "a problem at all" ($p<0.001$). However, because the Doers are already implementing the target behaviour, their belief that malnutrition is not a problem is not a significant barrier or determinant that keeps them from positive action. Therefore, this barrier will not be addressed under the project's DBC Framework.

Handwashing

Perceived negative consequences, self-efficacy, cues for action, social norms, susceptibility, and 'divine will' were significant determinants identified for caregivers who wash their hands with soap at least two of five critical times each day.

Summary of Findings: Handwashing
Non-Doers believe that **using unclean water to wash hands will make the baby sick**
It is easier for Doers to wash their hands with soap and water if **they have developed a habit to do so;** and Non-Doers **forget to wash their hands with soap and water at the critical times**
It is harder for Non-Doers to wash their hands with soap if they **don't have access to a local shop where they can buy soap**
Doers feel their **husbands approve** of them washing their hands with soap

Negative Consequences

Non-Doers were significantly more likely to believe that using unclean water to wash hands will make their child sick ($p < 0.01$). This suggests that Non-Doers would rather not wash their hands at all than wash their hands with what they perceive to be unclean water. Doers were 4.6 times more likely than Non-Doers to report no disadvantages to washing hands with soap ($p<0.01$).

Self-Efficacy

Non-Doers were significantly more likely to site lack of access to a local shop to buy soap as a barrier to handwashing ($p<0.001$). In addition, Non-Doers were significantly more likely to say that knowledge that handwashing prevents illness in babies makes it easier to practise the behaviour, however this is overridden by other barriers as ultimately this knowledge did not serve to increase uptake of the behaviour.

Doers were 5.5 times more likely than Non-Doers to respond that developing a habit of handwashing made it easier to wash hands at critical times ($p < 0.01$). At the same time, Non-Doers were significantly more likely to report that forgetting to wash their hands at critical times made it harder to do so ($p <0.001$).

Cues for Action

Related to the above, Doers were 2.9 times more likely than Non-Doers to respond that it was not difficult to remember to wash hands at critical times ($p <0.01$)

Social Norms

Perceived support from husbands is a key enabling factor influencing handwashing with soap at critical times: Doers were 3.9 times more likely than Non-Doers to report that their husband approved of them practising the behaviour ($p <0.05$).

Non-Doers were 9.3 times more likely than Doers to report that the child's mother approved of washing hands with critical times ($p<0.05$). Eligible respondents under this questionnaire were the child's mother, father, or grandmother. The Non-Doer respondents here must have been the child's grandmother or father. Unfortunately, the perceived approval by the child's mother to practice the behaviour was not enough to influence their action.

Susceptibility

Doers were 2.6 times more likely than Non-Doers to feel their child was not susceptible to malnutrition ($p<0.05$), while Non-Doers were 3.2 times more likely than Doers to report it was 'very or somewhat likely' their child would not grow well. This finding may suggest that Doers were confident that they were practising healthy behaviours, such as handwashing, to enable their child to grow well; while Non-Doers were aware that they were not. This finding will not be included in the DBC Framework.

Divine Will

Non-Doers are 3 times more likely to believe that God approves of them washing their hands with soap ($p<0.05$). However, this motivation was not enough to enable Non-Doers to take up the behaviour and as such will not be included in the DBC Framework.

Continued Breastfeeding

Negative consequences, self-efficacy, and social norms were the most significant determinants identified influencing continued breastfeeding of children from 12-23 months.

Summary of Findings: Continued Breastfeeding
Non-Doers believe that **breastfeeding is disruptive** when working (either paid employment or housework / gardening).
Doers feel **empowered** to continue breastfeeding and Non-Doers **don't think anyone approves** of them continuing to breastfeed
Non-Doers think their **friends disapprove** of them continuing to breastfeed

Negative Consequences

Non-Doers were 7.9 times more likely than Doers to believe that continued breastfeeding is a disruption to mother's work (either paid employment or housework) ($p < 0.01$).

Non-Doers were also 2.5 as likely to response that there were 'no disadvantages' to continuing to breastfeed their child after one year ($p<0.01$). This may suggest that because Non-Doers are not currently practising the behaviour, they are not aware of its disadvantages, while Doers may experience many disadvantages (despite their perseverance in practising the behaviour).

Self-Efficacy

Non-Doers were 4.7 times more likely to respond that having breastmilk available would make it easier to continue to breastfeed their child after 12 months ($p<0.001$). Responses coded under 'having breastmilk available' largely had to do with having breastmilk available for their child when the mother wasn't physically present to breastfeed (e.g. at work)

Interestingly, there were several responses under self-efficacy, where significantly more Non-Doers than Doers listed several things that made it easier to continue breastfeeding (knowledge of importance of breastfeeding, baby's preference for breastmilk, and ability of breastmilk to pacify a baby). However, since these enabling factors were listed by Non-Doers, they were apparently not reason enough to practise the behaviour; as such these responses will not be considered for reinforcement under the project's DBC Framework.

Social Norms

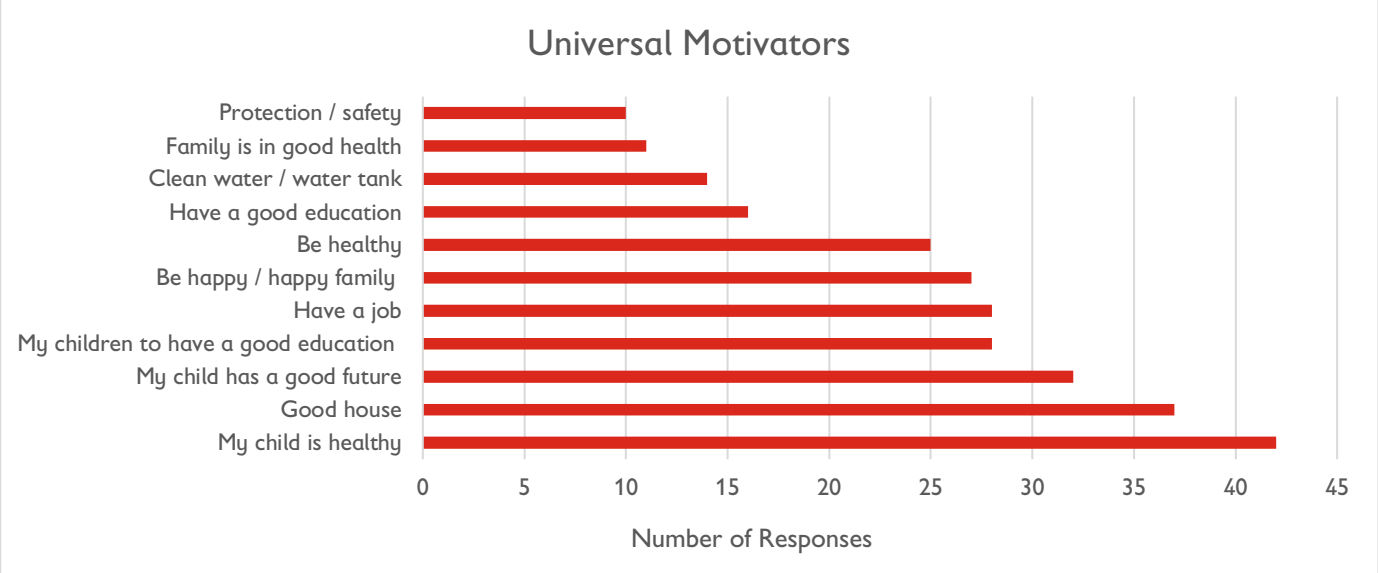
Both Doers and Non-Doers reported a widespread lack of perceived peer or family support to continue breastfeeding their child after one year. Doers were 7.2 times more likely than Non-Doers to report their family members disapproved of them continuing to breastfeed. However, when asked, "Who approves of you continuing to breastfeed your child?" Doers were 8.3 times more likely than Non-Doers for responding 'myself' ($p < 0.01$), indicating that Doers felt a degree of empowerment in their decision to continue to breastfeed their child, and the perceived disapproval of family members was not enough of a barrier to discourage the behaviour.

Conversely, Non-Doers were significantly more likely to say no one approved of them continuing to breastfeed ($p <0.05$), indicating that they did not feel they received any social support from family or friends to practise the behaviour. In fact, Non-Doers were significantly more likely to say their friends disapproved ($p <0.01$), indicating not just a perceived lack of support to practise the behaviour but an active discouragement from peers and friends.

Universal Motivators

For each behaviour, all respondents were asked, "What do you want most in life?" Responses were open-ended and the respondent could list as many answers as they liked. The Survey Team Lead then reviewed all responses, identified key words / themes, and then tallied the responses across the key themes identified.

Responses are not analysed by Doer and Non-Doer status, but simply to uncover key motivators among the target population which may be promoted in IEC materials or other mass media implemented by the project. The most common Universal Motivators present in the Barrier Analysis study population were as follows:



IMPLICATIONS

This section includes the completed DBC Frameworks for each of the three behaviours. The DBC Frameworks include the specific determinants found to be significant for each behaviour, as well as the tailored project strategies and activities designed to address each behaviour. The DBC Frameworks were developed by project staff immediately after completing the Barrier Analysis tabulation, through a facilitated process lead by the Study Lead. Additional baseline data sources from the project's household survey and gender analysis survey were also incorporated into the DBC Frameworks; particularly in the Priority Group column. Project staff were encouraged to think of creative activities (beyond simple standard activities, such as basic training) to specifically address each strategy. The DBC Frameworks effectively serve as the project's SBC Strategy, and additional DBC Frameworks for other priority behaviours may be completed in the future. The strategies and activities included in the DBC Frameworks will be addressed through existing project activities (e.g. mother / father / grandmother support groups and participatory community action planning) or may serve as examples of additional activities to be integrated as the project progresses.

Behaviour	Priority Group	Determinants	Strategies	Activities
Caregivers of children 6-23 months feed them at least 2 servings of fruits and vegetables every day	Mothers and grandmothers of children 6-23 months • Mothers and grandmothers have primary responsibility for feeding children • Some live in urban areas with easy access to market but no gardens • Some live in urban areas without access to market, only local store • Some live in rural areas with easy access to garden but no market Most are in *partial action* stage. • They know fruits and vegetables are healthy. • Island cabbage is a regular part of diet, but providing other fruits and vegetables is more sporadic.	<u>Perceived Advantages</u>: • Doers believe that feeding their child at least 2 servings of fruits and vegetables everyday **keeps the child healthy** and **prevents illness**	• Increase knowledge and perceptions that fruits and vegetables keep children healthy and prevents illness	• Incorporate information nutrients that exist in fruits and vegetables to keep children healthy through mother / father / grandmother support group • Develop / adapt IEC materials on nutrients available in fruits and veg and their benefit to body • Exchange plates of nutritious food with other mothers (bring to Maternal and Child Health (MCH) days, through support groups, or do at community level) • Fruits and vegetables photo tool (match the food to the nutrient / health benefit) • Snakes and Ladders game (fruits and veg) • Role plays on good effects of fruit and veg in human body
		<u>Self-Efficacy / Access:</u> • It is easier for Doers to feed their child at least 2 servings of fruits and vegetables everyday if they **have access to a market and / or their own garden**	• Increase access to local markets • Increase access to home gardens •	• Build small 20 Vatu road markets where mothers/caregivers can access / sell fruits and veg where there is no market. • Provide seedlings and basic gardening tools for kitchen gardens and then do follow-up observations • Sack gardening / hydroponics / aquaponics / grafting other techniques for growing backyard gardening • Food preservation

Behaviour	Priority Group	Determinants	Strategies	Activities
Caregivers of 0-23 months wash their hands at the 5 critical times each day: • Before preparing food • Before eating • Before feeding a child • After going to bathroom • After cleaning a child who has defecated	Mothers, fathers, and grandmothers children 0-23 months • 60% of houses have water at place for handwashing • 25% of houses had soap at place for handwashing • 24% of households had both soap and water • Soap and water at place for handwashing is higher in urban areas (31%) than rural (20%) • Knowledge of critical times for hand washing is 27% for women and 24% for men	<u>Perceived Disadvantages:</u> • Non-Doers believe that **using unclean water to wash hands will make the baby sick**	• Improve household water management to ensure clean water is available to wash hands • Improve the ability of caregivers to wash hands with clean water	• Help households construct tippy taps or other handwashing stations to encourage washing hands with clean, running water • Explain about keeping one bucket for dirty dishes and using other water to wash (household water management meeting)
		<u>Self-Efficacy:</u> • It is easier for Doers to wash their hands with soap and water if **they have developed a habit to do so** <u>Self-Efficacy / Reminders</u>: • Non-Doers **forget to wash their hands with soap and water at the critical times**	• Increase the ability of caregivers to remember / develop a habit of washing their hands with soap at critical times	• Develop posters that caregivers can display at a prominent place in their house that will serve as a reminder to wash hands (and also show how to wash hands) • Help households construct tippy taps or other handwashing stations to remind them to wash hands • Teach children to sing fun songs about critical times for handwashing
		<u>Self-Efficacy / Access :</u> • It is harder for Non-Doers to wash their hands with soap if they **don't have access to a local shop where they can buy soap**	• Increase availability of soap at all times in the home	• Strengthen health facilities ability to supply soap to caregivers 0-23 months • Train caregivers with skill of making local soap in remote communities, have them sell it at local markets
		<u>Social Norms:</u> Doers feel their **husbands approve** of them washing their hands with soap	Increase the perception that husbands approve of caregivers washing their hands with soap	• Through father's groups, encourage husbands to support their wives to wash hands • Award husbands who wash their hands and who support / encourages caregivers to wash hands

Behaviour	Priority Group	Determinants	Strategies	Activities
Mothers of children 12-23 months continue to breastfeed their children until they are at least 2 years	Mothers of children 12-23 months • 75% of mothers are continuing to breastfeed at one year (12-15 months) • 50% of mothers are continuing to breastfeed at two years (20-23 months) • 21% of mothers work outside the home • All mothers are very busy with household chores and cooking	<u>Negative Consequences / Self Efficacy:</u> • Non-Doers believe that **breastfeeding is disruptive** when working (either paid employment or housework / gardening).	• Improve the ability of mothers to continue breastfeeding their child after 1 year whilst they are working	• Print breastfeeding policy for working mothers and distribute through support groups • Awards / recognition of breastfeeding-friendly companies who comply with breastfeeding policies • IEC materials on practical strategies to feed child when working • Testimonials / Stori blong ol rol model mama – especially volleyball player • Role models to provide peer counselling on how to continue breastfeeding – and how they still manage to do it even with limited time • Breastfeeding support group, home visits to encourage continued breastfeeding • Encourage fathers to help with household chores and alleviate mothers workload so she has time to breastfeed
		<u>Social Norms</u>: • Doers feel **empowered** to continue breastfeeding • Non-Doers **don't think anyone approves** of them continuing to breastfeed • Non-Doers think their **friends disapprove** of them continuing to breastfeed	• Promote feeling proud among mothers who continue to breastfeed child after 1 year • Increase the ability of family members and friends to support mothers to continue breastfeeding until 2 years	• Organize community breastfeeding forums so community leaders can demonstrate their support to the importance of continued breastfeeding • Organize breastfeeding week / day – community event to get everyone to show support for breastfeeding • Provide small incentives (bag, calico, shirt) to reward/showcase mothers who continue to breastfeed

Annex A: Barrier Analysis Questionnaires

❑ **Doer** ❑ **Non-Doer**

Barrier Analysis Survey: Caregivers of children 6-23 months feed their child at least 2 fruits or vegetables every day

Name of Enumerator: _____

Name of Community: _____

Date of Interview: _____

INTRODUCTION: Hello, my name is _____ and I am working with Save the Children. We are conducting a survey and would like you to participate. I would like to ask you some questions about feeding of young children. The information you provide will help us design activities aimed at improving nutrition of young children in this community. Your responses to the questions will be confidential and will only be used for the purpose of this survey. Your participation is voluntary and nothing will be withheld from you or our family if you choose not to participate. The survey should take around 15 minutes to complete.

Are you willing to participate in the survey?

SECTION A: SCREENING QUESTIONS

<table>
<tr><th colspan="2"></th><th>A</th><th>B</th></tr>
<tr><td colspan="2">1. Do you have a child between the age of 6-23 months?</td><td>❑ Yes</td><td>❑ No</td></tr>
<tr><td colspan="2">2. Please describe to me everything that you fed your child yesterday during the day and night.

Listen for:</td><td rowspan="2">❑ Respondent mentions at least 2 fruits or vegetables</td><td rowspan="2">❑ Respondent mentions only 1 or 0 fruits or vegetables</td></tr>
<tr><td>Fruits:
Papaya
Banana
Passion Fruit
Avocado
Watermelon
Orange
Lemon
Pomplemouse
Naos (ripe)
Nakatambol (ripe)</td><td>Vegetables:
Pumpkin
Orange kumala
Island cabbage
Haricot
Corn
Tomato
Susut</td></tr>
<tr><td>DOER:
Question 1 = A
Question 2 = A</td><td>NON-DOER:
Question 1 = A
Question 2 = B</td><td colspan="2">DO NOT INTERVIEW:
Question 1 = B</td></tr>
</table>

❑ **Doer** ❑ **Non-Doer**

SECTION B: QUESTIONNAIRE

Explain to the respondent: Now I am going to ask you a series of questions about feeding your child fruits and vegetables every day. There are no right or wrong answers to these questions. I am only interested in learning about your experience.

Perceived Positive Consequences (Advantages)
1. What are the advantages (benefits) of feeding your child fruits and vegetables every day? *(Prompt: anything else?)*
Perceived Negative Consequences (Disadvantages)
2. What are the disadvantages of feeding your child fruits and vegetables every day? *(Prompt: anything else?)*
Perceived Self-Efficacy
3. What makes it easier (or would make it easier) for you to feed your child fruits and vegetables every day? *(Prompt: anything else?)* 4. What makes it hard for you to feed your child fruits and vegetables every day? *(Prompt: anything else?)*
Perceived Social Norms
5. Who are the people that approve or would like you to feed your child fruits and vegetables every day? *(Prompt: anyone else?)*
6. Who are the people that don't approve or don't want you to feed your child fruits and vegetables every day? *(Prompt: anyone else?)*

Access

7. How difficult is it for you to access fruits and vegetables?

READ the first 3 RESPONSES

- ❑ Very difficult
- ❑ Somewhat difficult
- ❑ Not difficult at all

- ❑ Don't know

Cues for Action / Reminders

8. How difficult is it for you to remember to feed your child fruits and vegetables every day?

READ the first 3 RESPONSES

- ❑ Very difficult
- ❑ Somewhat difficult
- ❑ Not difficult at all

- ❑ Don't know

Perceived Susceptibility

9. How likely is it that your child will become sick or suffer from malnutrition in the next year?

READ the first 3 RESPONSES

- ❑ Very likely
- ❑ Somewhat likely
- ❑ Not likely at all

- ❑ Don't know

Perceived Severity

10. How serious would it be if your child became sick or suffer from malnutrition in the next year?

READ the first 3 RESPONSES

- ❑ Very serious
- ❑ Somewhat serious
- ❑ Not serious at all

- ❑ Don't know

Perceived Action Efficacy

11. How likely is it that your child will become sick or suffer from malnutrition if you do not feed him or her fruits and vegetables every day?

READ the first 3 RESPONSES

❑ Very likely
❑ Somewhat likely
❑ Not likely at all

❑ Don't know

Perceived Divine Will

12. Do you believe God wants you to feed your child fruits and vegetables every day?

❑ Yes
❑ No

❑ Don't know

Policy

13. Are there any laws or community rules in place that make it more likely for you to feed your child fruits and vegetables every day?

❑ Yes
❑ No
❑ Don't know

If YES: What is the law or community rule?

Culture

14. Are there any kastom or taboos that you know of against feeding your child fruits and vegetables every day?

❑ Yes
❑ No

❑ Don't know

If YES: What is the kastom or tabu?

Universal Motivators

15. What are the things you want most in life?

END OF INTERVIEW

Thank the respondent for her time.

❑ **Doer** ❑ **Non-Doer**

Barrier Analysis Survey: Caregivers of children 0-23 months wash their hands with soap at least 2 of 5 critical times

Name of Enumerator: _____

Name of Community: _____

Date of Interview: _____

INTRODUCTION: Hello, my name is _____ and I am working with Save the Children. We are conducting a survey and would like you to participate. I would like to ask you some questions about feeding of young children. The information you provide will help us design activities aimed at improving nutrition of young children in this community. Your responses to the questions will be confidential and will only be used for the purpose of this survey. Your participation is voluntary and nothing will be withheld from you or our family if you choose not to participate. The survey should take around 15 minutes to complete.

Are you willing to participate in the survey?

SECTION A: SCREENING QUESTIONS

	A	B
3. Do you have a child between the age of 0-23 months?	❑ Yes	❑ No
4. Did you wash your hands at any time yesterday during the day or night?	❑ Yes	❑ No
5. Did you use soap when you washed your hands?	❑ Yes	❑ No
6. If YES: When did you wash your hands yesterday during the day or night? ❑ After going to the toilet ❑ After cleaning a child who has defecated ❑ Before cooking ❑ Before eating ❑ Before feeding a child	Total # ticks: ☐	

DOER: **Question 1 = A** **Question 2 = A** **Question 3 = A** **Question 4 = 2+ ticks**	**NON-DOER:** **Question 1 = A** **Question 2 = B** **Question 3 = B** **Question 4 = 0-1 tick**	**DO NOT INTERVIEW:** **Question 1 = B**

❑ **Doer** ❑ **Non-Doer**

SECTION B: QUESTIONNAIRE

Explain to the respondent: Now I am going to ask you a series of questions about washing your hands with soap at specific times: after going to the toilet, after cleaning a child who has defecated, before cooking, before eating, and before feeding a child. For the purpose of this survey, I am going to call these the "critical times" for handwashing. There are no right or wrong answers to these questions. I am only interested in learning about your experience.

Perceived Positive Consequences (Advantages)
1. What are the advantages (benefits) of washing your hands with soap at critical times? *(Prompt: anything else?)*
Perceived Negative Consequences (Disadvantages)
2. What are the disadvantages of washing your hands with soap at critical times? *(Prompt: anything else?)*
Perceived Self-Efficacy
3. What makes it easier (or would make it easier) for you to wash your hands with soap at critical times? *(Prompt: anything else?)* 4. What makes it hard for you to wash your hands with soap at critical times? *(Prompt: anything else?)*
Perceived Social Norms
5. Who are the people that approve or would like you to wash your hands with soap at critical times? *(Prompt: anyone else?)*
6. Who are the people that don't approve or don't want you to wash your hands with soap at critical times? *(Prompt: anyone else?)*

Access

7. How difficult is it for you to access soap?

READ the first 3 RESPONSES

- ❑ Very difficult
- ❑ Somewhat difficult
- ❑ Not difficult at all

- ❑ Don't know

Cues for Action / Reminders

8. How difficult is it for you to remember to wash your hands with soap at critical times?

READ the first 3 RESPONSES

- ❑ Very difficult
- ❑ Somewhat difficult
- ❑ Not difficult at all

- ❑ Don't know

Perceived Susceptibility

9. How likely is it that your child will become sick or suffer from malnutrition in the next year?

READ the first 3 RESPONSES

- ❑ Very likely
- ❑ Somewhat likely
- ❑ Not likely at all

- ❑ Don't know

Perceived Severity

10. How serious would it be if your child became sick or suffer from malnutrition in the next year?

READ the first 3 RESPONSES

- ❑ Very serious
- ❑ Somewhat serious
- ❑ Not serious at all

- ❑ Don't know

Perceived Action Efficacy

11. How likely is it that your child will become sick or suffer from malnutrition if you do not wash your hands with soap at critical times?

READ the first 3 RESPONSES

❑ Very likely
❑ Somewhat likely
❑ Not likely at all

❑ Don't know

Perceived Divine Will

12. Do you believe God wants you to wash your hands with soap at critical times?

❑ Yes
❑ No

❑ Don't know

Policy

13. Are there any laws or community rules in place that make it more likely for you to wash your hands with soap at critical times?

❑ Yes
❑ No

❑ Don't know

If YES: What is the law or community rule?

Culture

14. Are there any kastom or taboos that you know of against washing your hand with soap at critical times?

❑ Yes
❑ No

❑ Don't know

If YES: What is the kastom or tabu?

Universal Motivators

15. What are the things you want most in life?

END OF INTERVIEW

Thank the respondent for her time.

❑ **Doer** ❑ **Non-Doer**

Barrier Analysis Survey: Mothers of children 12-23 months continue to breastfeed

Name of Enumerator: _____

Name of Community: _____

Date of Interview: _____

INTRODUCTION: Hello, my name is _____ and I am working with Save the Children. We are conducting a survey and would like you to participate. I would like to ask you some questions about feeding of young children. The information you provide will help us design activities aimed at improving nutrition of young children in this community. Your responses to the questions will be confidential and will only be used for the purpose of this survey. Your participation is voluntary and nothing will be withheld from you or our family if you choose not to participate. The survey should take around 15 minutes to complete.

Are you willing to participate in the survey?

SECTION A: SCREENING QUESTIONS

		A	B
7. Do you have a child between the age of 12-23 months? (1 to 2 years old)		❑ Yes	❑ No
8. Are you currently breastfeeding that child?		❑ Yes	❑ No
DOER: **Question 1 = A** **Question 2 = A**	**NON-DOER:** **Question 1 = A** **Question 2 = B**	**DO NOT INTERVIEW:** **Question 1 = B**	

❑ **Doer** ❑ **Non-Doer**

Explain to the respondent: Now I am going to ask you a series of questions about continuing to breastfeed your child after they are 1 year old. There are no right or wrong answers to these questions. I am only interested in hearing about your experience.

SECTION B: QUESTIONNAIRE

Perceived Positive Consequences (Advantages)
1. What are the advantages (benefits) of breastfeeding your child even after they are 1 year old? *(Prompt: anything else?)*
Perceived Negative Consequences (Disadvantages)
2. What are the disadvantages of breastfeeding your child even after they are 1 year old? *(Prompt: anything else?)*
Perceived Self-Efficacy
3. What makes it easier (or would make it easier) for you to continue to breastfeed your child? *(Prompt: anything else?)* 4. What makes it hard for you to continue to breastfeed your child? *(Prompt: anything else?)*
Perceived Social Norms
5. Who are the people that approve or would like you to continue to breastfeed your child? *(Prompt: anyone else?)*
6. Who are the people that don't approve or don't want you to continue to breastfeed your child? *(Prompt: anyone else?)*

Perceived Susceptibility
7. How likely is it that your child will become sick or suffer from malnutrition in the next year? **READ the first 3 RESPONSES** ❑ Very likely ❑ Somewhat likely ❑ Not likely at all ❑ Don't know
Perceived Severity
8. How serious would it be if your child became sick or suffer from malnutrition in the next year? **READ the first 3 RESPONSES** ❑ Very serious ❑ Somewhat serious ❑ Not serious at all ❑ Don't know
Perceived Action Efficacy
9. How likely is it that your child will become sick or suffer from malnutrition if you do not continue to breastfeed your child even after 1 year? **READ the first 3 RESPONSES** ❑ Very likely ❑ Somewhat likely ❑ Not likely at all ❑ Don't know
Perceived Divine Will
10. Do you believe God wants you to continue to breastfeed your child? ❑ Yes ❑ No ❑ Don't know
Policy
11. Are there any laws or community rules in place that make it more likely for you to continue to breastfeed your child? ❑ Yes ❑ No

❑ Don't know

If YES: What is the law or community rule?

Culture

12. Are there any kastom or taboos that you know of against continuing to breastfeed your child after they turn 1 year?

❑ Yes
❑ No

❑ Don't know

If YES: What is the kastom or tabu?

Universal Motivators

13. What are the things you want most in life?

END OF INTERVIEW

Thank the respondent for her time.

Annex B: Full Results Tabulation

Dietary Diversity

Determinant	# Doers (total: 52)	# Non-Doers (total: 48)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Positive Consequences									
Keeps child from getting sick	42	26	81%	54%	-27%	3.55	1.45	8.68	*0.004*
Child is healthy	44	32	85%	67%	-18%	2.75	1.05	7.20	*0.036*
Gives child energy	9	6	17%	13%	-5%	1.47	0.48	4.48	0.501
Child becomes smart	5	6	10%	13%	3%	0.74	0.21	2.62	0.645
Helps child's digestion / stools	1	2	2%	4%	2%	0.45	0.04	5.14	0.511
Child likes taste of fruits / veg	1	4	2%	8%	6%	0.22	0.02	2.00	0.142
Child grows tall	5	2	10%	4%	-5%	2.45	0.45	13.25	0.286
Child sleeps well	0	2	0%	4%	4%	0.00			0.137
Child doesn't cry	0	1	0%	2%	2%	0.00			0.296
Child is full / satisfied	0	1	0%	2%	2%	0.00			0.296
Negative Consequences									
Child gets diarrhea	15	2	29%	4%	-25%	9.32	2.00	43.39	*0.001*
Child gets cough / ARI / cold	14	4	27%	8%	-19%	4.05	1.23	13.36	*0.016*
No disadvantages	22	24	42%	50%	8%	0.73	0.33	1.61	0.441
Child gets stomach ache / gas	8	5	15%	10%	-5%	1.56	0.47	5.16	0.461
Too much food / overfeeding	6	5	12%	10%	-1%	1.12	0.32	3.94	0.858

Dietary Diversity

Determinant	# Doers (total: 52)	# Non-Doers (total: 48)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Self-Efficacy: Makes it Easier									
Access to local market	22	8	42%	17%	-26%	3.67	1.44	9.36	*0.005*
Access to garden	46	33	88%	69%	-20%	3.48	1.22	9.93	*0.016*
Small store sells fruits / veg	2	1	4%	2%	-2%	1.88	0.16	21.43	0.606
Fruits / veg are cheap / affordable	1	5	2%	10%	8%	0.17	0.02	1.50	0.074
Self-Efficacy: Makes it Difficult									
Nothing makes it hard	34	6	65%	13%	-53%	13.22	4.73	36.99	*0.000*
Ash fall	8	4	15%	8%	-7%	2.00	0.56	7.13	0.278
Too busy	1	3	2%	6%	4%	0.29	0.03	2.93	0.270
Distance to garden / no garden	16	10	31%	21%	-10%	1.69	0.68	4.20	0.258
Climate change	3	3	6%	6%	0%	0.92	0.18	4.79	0.919
Seasonality	7	5	13%	10%	-3%	1.34	0.39	4.54	0.640
No money	16	8	31%	17%	-14%	2.22	0.85	5.81	0.099
Child doesn't like fruits / veg	0	3	0%	6%	6%	0.00			0.067
Social Norms: Who Approves									
My husband	4	2	8%	4%	-4%	1.92	0.33	10.97	0.458
Child's father	7	8	13%	17%	3%	0.78	0.26	2.34	0.654
Grandmother	21	19	40%	40%	-1%	1.03	0.46	2.30	0.935
Grandfather	10	7	19%	15%	-5%	1.39	0.48	4.01	0.536
Health Worker	24	18	46%	38%	-9%	1.43			0.381

Dietary Diversity									
Determinant	# Doers (total: 52)	# Non-Doers (total: 48)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
All family members	11	5	21%	10%	-11%	2.31	0.74	7.22	0.143
Child's mother	7	11	13%	23%	9%	0.52	0.18	1.48	0.219
Community leaders	2	1	4%	2%	-2%	1.88	0.16	21.43	0.606
Social Norms: Who Disapproves									
No one	46	38	88%	79%	-9%	2.02	0.67	6.06	0.205
Grandfather	3	1	6%	2%	-4%	2.88	0.29	28.65	0.347
Auntie	2	0	4%	0%	-4%				0.170
Child's father	1	2	2%	4%	2%	0.45	0.04	5.14	0.511
Child's mother	0	2	0%	4%	4%	0.00			0.137
Access: How difficult to access fruit / veg									
Very difficult	6	8	12%	17%	5%	0.65	0.21	2.04	0.460
Somewhat difficult	17	20	33%	42%	9%	0.68	0.30	1.54	0.353
Not difficult	29	15	56%	31%	-25%	2.77	1.22	6.30	*0.014*
Cues for Action: How difficult to remember to feed fruit / veg									
Very difficult	1	2	2%	4%	2%	0.45	0.04	5.14	0.511
Somewhat difficult	27	21	52%	44%	-8%	1.39	0.63	3.05	0.414
Not difficult	20	21	38%	44%	5%	0.80	0.36	1.79	0.591
Susceptibility: How likely that child might not grow well									
Very likely	2	4	4%	8%	4%	0.44	0.08	2.52	0.345

Dietary Diversity									
Determinant	**# Doers (total: 52)**	**# Non-Doers (total: 48)**	**% Doers**	**% Non-Doers**	**Difference (%)**	**Odds Ratio**	**Confident Interval**		**p-value**
							Upper	**Lower**	
Somewhat likely	23	20	44%	42%	-3%	1.11	0.50	2.45	0.796
Not likely	27	13	52%	27%	-25%	2.91	1.26	6.72	*0.011*
Severity: How serious if child didn't grow well									
Big problem	12	12	23%	25%	2%	0.90	0.36	2.25	0.822
Small problem	15	18	29%	38%	9%	0.68	0.29	1.56	0.358
Not a problem at all	28	10	54%	21%	-33%	4.43	1.83	10.74	*0.001*
Action Efficacy: Belief that fruits / veg helps child grow well									
It helps	18	14	35%	29%	-5%	1.29	0.55	2.99	0.560
It might help	20	20	38%	42%	3%	0.88	0.39	1.95	0.744
It doesn't help	12	10	23%	21%	-2%	1.14	0.44	2.95	0.787
Divine Will: Believes God approves of feeding fruits / veg									
Yes	48	40	92%	83%	-9%	2.40	0.67	8.56	0.168
No	4	8	8%	17%	9%	0.42	0.12	1.49	0.168
Policies / Laws exist to support giving fruit / veg									
Yes	7	6	13%	13%	-1%	1.09	0.34	3.50	0.886
No	45	42	87%	88%	1%	0.92	0.29	2.96	0.886
Culture: Customs / taboos against giving fruit / veg									
Yes	2	1	4%	2%	-2%	1.88	1.88	1.88	0.606
No	50	47	96%	98%	2%	0.53	0.53	0.53	0.606

Handwashing

Determinant	# Doers (total: 51)	# Non-Doers (total: 51)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Positive Consequences									
Healthy baby	27	26	53%	51%	-2%	1.08	0.50	2.35	0.843
Prevents diseases	40	41	78%	80%	2%	0.89	0.34	2.32	0.807
Promotes hygiene practices	12	8	24%	16%	-8%	1.65	0.61	4.47	0.318
Child grows tall	2	2	4%	4%	0%	1.00	0.14	7.39	1.000
Child grows smart and strong	0	2	0%	4%	4%	0.00			0.153
Negative Consequences									
No disadvantages	46	34	90%	67%	-24%	4.60	1.54	13.70	*0.004*
Makes baby sick when using unclean water	0	9	0%	18%	18%	0.00			*0.002*
Allergic to soap	5	7	10%	14%	4%	0.68	0.20	2.31	0.539
Baby eats the soap	1	0	2%	0%	-2%				0.315
Self-Efficacy: Makes it Easier									
Developing an habit of hand wash with soap	13	3	25%	6%	-20%	5.47	1.45	20.61	*0.006*
Knowledge that handwashing prevents illness in babies	0	10	0%	20%	20%	0.00			*0.001*
Availability of water and soap	39	37	76%	73%	-4%	1.23	0.50	3.00	0.650
Access to soap/water	4	8	8%	16%	8%	0.46	0.13	1.63	0.219
Support from husband	1	0	2%	0%	-2%				0.315
Self-Efficacy: Makes it Difficult									
Forget to wash hands with water and soap	0	12	0%	24%	24%	0.00			*0.000*

Handwashing

Determinant	# Doers (total: 51)	# Non-Doers (total: 51)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
No access to shop to buy	0	5	0%	10%	10%	0.00			*0.022*
Very busy, no time to wash hands with soap	15	15	29%	29%	0%	1.00	0.43	2.34	1.000
No soap / water to wash hand available	24	19	47%	37%	-10%	1.50	0.68	3.30	0.316
No money to buy soap	10	8	20%	16%	-4%	1.31	0.47	3.65	0.603
No difficulties to wash hands with soap	8	9	16%	18%	2%	0.87	0.31	2.46	0.790
Too lazy	0	3	0%	6%	6%	0.00			0.079
Social Norms: Who Approves									
Husband	10	3	20%	6%	-14%	3.90	1.01	15.14	*0.038*
Childs mother	1	8	2%	16%	14%	0.11	0.01	0.89	*0.015*
Grandmother	11	11	22%	22%	0%	1.00	0.39	2.57	1.000
Child's father	3	6	6%	12%	6%	0.47	0.11	1.99	0.295
Other family members(Auntie, uncle, sister, brother)	10	7	20%	14%	-6%	1.53	0.53	4.40	0.425
Health care worker	24	27	47%	53%	6%	0.79			0.552
NGOs	6	11	12%	22%	10%	0.48	0.16	1.43	0.184
Grandfather	1	6	2%	12%	10%	0.15	0.02	1.29	0.050
Social Norms: Who Disapproves									
Community leaders	1	1	2%	2%	0%	1.00	0.06	16.44	1.000
Other family members(Auntie, uncle, sister, brother)	1	0	2%	0%	-2%				0.315

Handwashing									
Determinant	# Doers (total: 51)	# Non-Doers (total: 51)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
No one disapproves									
Childs father	42	48	82%	94%	12%	0.29	0.07	1.15	0.065
Child's father	1	0	2%	0%	-2%				0.315
Access: How difficult to access soap									
Very difficult	1	5	2%	10%	8%	0.18	0.02	1.63	0.092
Somewhat difficult	21	29	41%	57%	16%	0.53	0.24	1.17	0.113
Not difficult	29	16	57%	31%	-25%	2.88	1.28	6.49	*0.010*
Cues for Action: How difficult to remember to wash hands									
Very difficult	1	5	2%	10%	8%	0.18	0.02	1.63	0.092
Somewhat difficult	21	29	41%	57%	16%	0.53	0.24	1.17	0.113
Not difficult	29	16	57%	31%	-25%	2.88	1.28	6.49	*0.010*
Susceptibility: How likely that child might not grow well									
Very likely	7	11	14%	22%	8%	0.58	0.20	1.64	0.299
Somewhat likely	15	25	29%	49%	20%	0.43	0.19	0.98	*0.043*
Not likely	24	13	47%	25%	-22%	2.60	1.13	5.99	*0.023*
Severity: How serious if child didn't grow well									
Big problem	16	20	39%	31%	8%	0.71	0.31	1.60	0.407
Small problem	14	13	25%	27%	-2%	1.11	0.46	2.67	0.822
Not a problem at all	15	15	29%	29%	0%	1.00	0.43	2.34	1.000
Action Efficacy: Belief that washing hands helps child grow well									

Handwashing									
Determinant	**# Doers (total: 51)**	**# Non-Doers (total: 51)**	**% Doers**	**% Non-Doers**	**Difference (%)**	**Odds Ratio**	**Confident Interval Upper**	**Confident Interval Lower**	**p-value**
It helps	21	24	41%	47%	6%	0.79	0.36	1.72	0.550
It might help	20	14	39%	27%	-12%	1.71	0.74	3.92	0.208
It doesn't help	10	13	20%	25%	6%	0.71	0.28	1.82	0.477
Divine Will: Believes God approves of washing hands									
Yes	28	40	55%	78%	24%	0.33	0.14	0.80	*0.012*
No	13	7	25%	14%	-12%				0.135
Policies / Laws exist to support washing hands									
Yes	2	3	4%	6%	2%	0.65	0.10	4.08	0.647
No	49	48	96%	94%	-2%	1.53	0.24	9.57	0.647
Culture: Customs / taboos against handwashing									
Yes	0	1	0%	2%	2%	0.00			0.315
No	51	50	100%	98%	-2%				0.315

Continued Breastfeeding									
Determinant	# Doers (total: 461)	# Non-Doers (total: 49)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Positive Consequences									
It is healthy	25	36	54%	73%	19%	0.43	0.18	1.02	0.052
Child will grow well	16	12	35%	24%	-10%	1.64	0.68	4.00	0.271
Will protect child from getting sick	14	15	30%	31%	0%	0.99	0.41	2.38	0.985
Helps in brain development of child	5	10	11%	20%	10%	0.48	0.15	1.52	0.203
Breastmilk is always available	10	4	22%	8%	-14%	3.13	0.90	10.79	0.062
No cost	2	1	4%	2%	-2%	2.18	0.19	24.91	0.520
Negative Consequences									
No disadvantages	23	35	50%	71%	21%	0.40	0.17	0.93	*0.032*
Disrupts mother's work	2	13	4%	27%	22%	0.13	0.03	0.59	*0.003*
Can make the baby sick	11	13	24%	27%	3%	0.87	0.34	2.20	0.769
Self-Efficacy: Makes it Easier									
Breastmilk is always available	24	41	52%	84%	31%	0.21	0.08	0.55	*0.001*
I have knowledge on importance of breast feeding	0	6	0%	12%	12%	0.00			*0.014*
Baby likes breast milk	0	5	0%	10%	10%	0.00			*0.026*
Helps to pacify the baby (stop crying)	0	7	0%	14%	14%	0.00			*0.008*
When the mother isn't working and stays at home	0	4	0%	8%	8%	0.00			*0.048*
No cost	9	8	20%	16%	-3%	1.25	0.44	3.57	0.681
Self-Efficacy: Makes it Difficult									

Continued Breastfeeding									
Determinant	# Doers (total: 461)	# Non-Doers (total: 49)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Nothing makes it hard	18	10	39%	20%	-19%	2.51	1.01	6.25	*0.045*
Mother is too busy with work (inside or outside house)	21	21	46%	43%	-3%	1.12	0.50	2.52	0.784
It makes the mother hungry all the time	4	2	9%	4%	-5%	2.24	0.39	12.85	0.356
When the mother is pregnant again	2	1	4%	2%	-2%	2.18	0.19	24.91	0.520
Baby has teeth and bites nipples	0	3	0%	6%	6%	0.00			0.088
Baby is separated from mother (staying with other relatives)	0	2	0%	4%	4%	0.00			0.166
Social Norms: Who Approves									
Myself	12	2	4%	26%	-22%	8.29	1.74	39.50	*0.002*
No one	0	4	8%	0%	8%	0.00			*0.048*
My husband/child's father	14	7	14%	30%	-16%	2.63	0.95	7.26	0.058
Grandmother	23	25	51%	50%	1%	0.96	0.43	2.15	0.921
Grandfather	8	9	18%	17%	1%	0.94	0.33	2.68	0.901
Health Worker	20	28	57%	43%	14%	0.58			0.183
All family members	6	7	14%	13%	1%	0.90	0.28	2.91	0.860
Community leaders	0	1	2%	0%	2%	0.00			0.330
Social Norms: Who Disapproves									
Friends	0	9	0%	18%	18%	0.00			*0.002*
Other family members	18	4	39%	8%	-31%	7.23	2.22	23.58	*0.000*
No one	27	29	59%	59%	0%	0.98	0.43	2.22	0.961

Continued Breastfeeding									
Determinant	# Doers (total: 461)	# Non-Doers (total: 49)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
Grandmother	6	4	13%	8%	-5%	1.69	0.44	6.41	0.439
Myself	4	5	9%	10%	2%	0.84	0.21	3.34	0.802
Child's father	0	2	0%	4%	4%	0.00			0.166
Susceptibility: How likely that child might not grow well									
Very likely	4	1	2%	9%	-7%	4.57	0.49	42.52	0.147
Somewhat likely	20	27	55%	43%	12%	0.63	0.28	1.41	0.257
Not likely	19	19	39%	41%	-3%	1.11	0.49	2.53	0.801
Severity: How serious if child didn't grow well									
Big problem	14	15	31%	30%	0%	0.99	0.41	2.38	0.985
Small problem	9	14	29%	20%	9%	0.61	0.23	1.58	0.306
Not a problem at all	19	18	37%	41%	-5%	1.21	0.53	2.77	0.648
Action Efficacy: Belief that continued breastfeeding helps child grow well									
It helps	10	6	22%	12%	-9%	1.99	0.66	6.01	0.217
It might help	15	20	33%	41%	8%	0.70	0.30	1.62	0.407
It doesn't help	20	19	43%	39%	-5%	1.21	0.54	2.75	0.641
Divine Will: Believes God approves of continued breastfeeding									
Yes	40	40	82%	87%	-5%	1.50	0.49	4.61	0.477
No	6	9	18%	13%	5%	0.67	0.22	2.05	0.477
Policies / Laws exist to support continued breastfeeding									
Yes	4	5	9%	10%	2%	0.84	0.21	3.34	0.802

Continued Breastfeeding									
Determinant	# Doers (total: 461)	# Non-Doers (total: 49)	% Doers	% Non-Doers	Difference (%)	Odds Ratio	Confident Interval Upper	Confident Interval Lower	p-value
No	42	44	91%	90%	-2%	1.19	0.30	4.75	0.802
Culture: Customs / taboos against handwashing									
Yes	3	1	7%	2%	-4%	3.35	3.35	3.35	0.277
No	43	48	93%	98%	4%	0.30	0.30	0.30	0.277