Research Protocol

Title of Study

Study on the effect of the baby-wrap as a communication strategy for vaccination coverage in Niger, West Africa

September 2019

Keio University Faculty of Policy Management, Japan,
Harvard School of Public Health, Boston, USA
Université Privée Africaine pour le Développement (UPAD), Niger

in collaboration with
ZTwist Design LLC and OncArt Inc, Boston, Massachusetts, USA
GAIA Vaccine Foundation, Providence, Rhode Island, USA

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RESUME

I. Sector	This study integrates epidemiology as well as the social and human sciences.
II. Coordination/execution	Ministry of Public Health (DI, DGSR), National Institute of Statistics, Students, UNICEF
III. Actors	Keio University Japan, Université Privée Africaine pour le Développement Niger, Ztwist Design LLC and OnCArt Inc USA, GAIA Vaccine Foundation USA, Ministry of Public Health Niger
IV. Zone of intervention	Niamey region
V. Start and finish of project	November 2019 to November 2020
VI. Context and justification	Wax prints are used by most African women. There are multiple uses for the wax print fabric, such as clothing, baby-wrap, and other practical items for both daily and ceremonial activities. Four women from around the world have come together to realize a project that uses a wax print baby-wrap to promote immunization.
VII. Project Objectives	This study aims to evaluate the effect of a baby-wrap designed by the Design Communications Team, as a communication strategy to promote vaccination uptake and coverage.
VIII. Methodology	Timeline of the Study 1) Recruitment – we will aim to recruit approximately 1,000 pregnant women in their third trimester in 20 health clinics in Niamey during a 10 day recruitment period. The health clinics will be randomized to treatment and control but this information will not be shared with the women when obtaining informed consent. 2) Baseline survey - Right after informed consent, we will conduct a baseline survey on socioeconomic characteristics and knowledge, motivation, and vaccination behaviors of the pregnant women. 3) Intervention - After the baseline survey, women who access the treatment health centers will be given the baby wrap with an explanation on the information in the baby-wrap. Women in the control arm, on the other hand, will not receive anything. 4) Post-intervention survey – 4 months after provision of the baby-wrap, all the mothers participating in the study will be asked a series of questions on vaccination knowledge

<table>
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<tr><td>XIII. Principal Investigator</td><td>Ms. Mika KUNIEDA, Assistant Professor, Keio University Faculty of Policy Management, Tokyo</td></tr>
<tr><td>XIV. Co-investigators</td><td>● Ms. Ryoko SATO, Research Associate, T.H. Chan Harvard School of Public Health, USA
● Dr. Maimouna Halidou Doudou, Director and researcher at the Université Privée Africaine pour le Développement
● Ms. Eliza Squibb, Art Director, ZTwist Design LLC</td></tr>
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	• Ms. Julia Shivers, Content Director, ZTwist Design LLC • Mrs. Mariama DeJean, Division Head, Social Mobilization, Immunisation Division (DI), Ministry of Public Health
XV. Keywords	Vaccination, communication, vaccination reminders, behavior change, Niger

I. CONTEXT AND JUSTIFICATION

Niger is a country in West Africa with an area of 1,267,000 Km^2 and a population estimated at over 20 million inhabitants. Despite being ranked near last in recent years' UNDP Human Development Index, Niger has succeeded in reducing neonatal and infant mortality rates through improvements to health services as well as the acceptance and utilization of these services by the population.

An analysis of available vaccination coverage finds work remains to be done in order for children to be completely protected against infectious diseases through routine vaccination. Although there is a growing number of studies on the effectiveness of the vaccination card, other communication strategies have not been studied. This includes communication strategies on the vaccination calendar and its association with vaccination coverage.

A study done by the Principal Investigator in 2016 found that:

- Understanding of the vaccination calendar is associated with vaccination coverage
- Health agents can play an important role in motivating mothers towards practices realizing vaccination
- The dropout rate, in particular between Penta 3 at 4.5 months and measles/yellow fever at 9 months was relatively high

The evaluation of routine immunization coverage from December 2017 published the following coverage rates for Niger and Niamey's five districts.

Table 1: Vaccination coverage rates for Niger and Niamey's five districts

	Niger	Niamey 1	Niamey 2	Niamey 3	Niamey 4	Niamey 5
Card seen	74.2	81.7	83.2	80.6	89.2	76.4
BCG	69.7	80.3	81.3	80.1	80.1	73.0
Penta 1	92.1	98.3	95.5	97.1	97.7	99.9
Penta 3	54.3	64.9	65.1	64.5	68.9	55.0
measles	51.8	72.1	59.2	62.3	67.1	51.9

Dropout rate Penta 1 to Penta 3 (%)	13.0	11.2	11.1	9.0	10.9	11.5

From the table above, one observes that the situation in District 5 is worse than the other districts 1 to 4, and closest to the average of the country, which is the first column.

Although behaviors of the urban population differ from the rest of the country, Niamey the capital was chosen for the pilot test based on the following characteristics of female survey participants:

- greater freedom around the expression of personal opinions and understanding;
- increased exposure to diverse styles of clothing and dress;
- potential ability to clearly express how concepts such as the vaccination calendar is understood by themselves and their peers.

It is in this context that we initiate this study on the effectiveness of the baby-wrap as a communication strategy to promote vaccination uptake and coverage.

II. GOALS, OBJECTIVES, AND HYPOTHESIS

1. Study Goal

Identify a simple, useful, and visually compelling communication strategy to reduce vaccination dropout, promote vaccination coverage and completion.

2. General Objective

Measure the effect of the baby-wrap as a communication strategy in reducing vaccination dropout, promoting vaccination, through symbols from the vaccination calendar and understanding and practices associated with knowledge on the vaccination schedule.

3. Specific Objectives

- Determine the number of health agents trained on “the talking textile”
- Determine the number of women who received the “the talking textile” and participated in health education sessions
- Calculate the vaccination coverage rate based on the information entered on the vaccination card (page of the maternal and child health handbook).

- Identify the effect of the baby-wrap in improving coverage as well as reducing dropout between Penta 1 and Penta 3 of the intervention group and the control group.

4. **Hypothesis**

The provision of the specially-designed baby-wrap will increase Penta 3 coverage rate among children under 6 months old as well as maternal knowledge of the vaccination calendar.

5. Sample size

As this study represents a pilot that will provide data for a larger trial there is no sample size calculation.

III. METHODS

1. Type, place, and period of study

This intervention study will be conducted in 3 phases:

1. Phase 1: Literature review, review of administrative data and survey data supplemented by a baseline survey: cross-sectional survey on the socioeconomic characteristics of pregnant women as well as their knowledge about and motivation for vaccination
2. Phase 2: An intervention-control study. The women in the intervention group receive interpersonal communication and a “talking textile”. The women of the control group will receive the normal daily services of the health center.
3. Phase 3: Post-intervention survey- 4 months after the distribution of the baby-wrap, all mothers who participated in the study will be asked a series of questions on the vaccination-related knowledge

This pilot study will be conducted in urban Niamey (Niger) between November 2019 and November 2020.

2. Research fields

This study integrates epidemiology as well as the social and human sciences.

3. Study population

The primary focus of this study are children are the ages of 5 years old.

The study population will be pregnant women in their last trimester and their infants residing in peripheral neighborhoods of Niamey, the capital of Niger.

4. Selection criteria (inclusion-exclusion)

Inclusion

1) The parents/mother have/has given their/her consent by signature or thumbprint, to being interviewed after being informed of the survey

2) The mother has just delivered her baby, and she/the father has brought the baby to the health center for the baby's first vaccination;

Exclusion

1) those persons who do not consent to be interviewed
2) those mothers and newborns who do not intend to stay in Niamey during the study period (approximately 6 months)

5. Sample size and randomization

The choice of districts was a reasoned choice: these are the five health districts of the urban community of Niamey.

Based on the available administrative information, 20 integrated health centers will be selected randomly from the health districts with preference given to the peripheral neigborhoods.

Since this is a pilot, the sample size will be 1000 women who use 20 health centers in the peripheral neighborhoods of Niamey.

6. Randomization

Collect and analyze administrative data and vaccination coverage data by health center in order to match health centers before randomly allocating health centers in Niamey, the capital of Niger, to intervention and control groups.

- 500 women in 10 health centers will be randomly allocated to the intervention group. They will receive interpersonal communication and a baby-wrap with messages on the vaccination calendar
- 500 women in 10 health centers will be randomly allocated to the control group. The women will receive normal health services.

7. Study procedures

Phase 1: Baseline survey

All pregnant women in their third trimester who use the selected 20 health clinics in Niamey will be recruited into the study. The pregnant women will be surveyed on baseline socioeconomic characteristics, their understanding of the vaccination calendar and most importantly, on their motivation to get her child vaccinated.

During this phase, health agents from the 20 health centers will be trained on the messages and how to use tablets with the ODK software.

Phase 2: Intervention

For the pregnant women recruited in Phase 1, they will be strongly recommended to come back after giving birth with their new born for it's first vaccination. The health agent and the surveyors will explain the survey and what is expected of them.

Women interested in participating will give their informed consent through a signature or a thumbprint.

The women will be randomly allocated into two groups:

- women who use a health center randomly allocated to the intervention group will receive a baby-wrap with a verbal explanation of the vaccination calendar delivered by the health agent who has received a “refresher training” on interpersonal communication
- The women who bring their infant to the randomly allocated control health center will receive just normal services.

The mothers and their infants will be monitored for approximately 4 months to see if they succeed in respecting the vaccination calendar or specifically, whether they receive the Pentavalent 1, 2 and 3 doses necessary for complete vaccination status which is defined as 7 antigens by WHO and other health partners.

Phase 3: Post-intervention

A second survey on motivation, capacity, and prompts to act will be completed at approximately the fourth visit (when the child is 3 months old), in order to assess any changes in understanding of the vaccination calendar.

The women in the control group will be administered the same surveys as the intervention group women.
If women in the control group do not come back for vaccination, they will be followed up by the surveyors using information from the health center registry, to take a photo of the vaccination card and conduct an interview.

8. Investigation methods and tools

This intervention’s theory of change is based on the Fogg Behavior Model which claims that three elements: Motivation, Ability, and a Prompt, must converge concurrently for a behavior to be realized.

The proposed questionnaires (Appendix 1a, 1b) include questions which can be categorized under the three main elements of the Fogg Behavior Model. The questions will be reexamined and adapted to the Nigerien context, through a coordinating committee whose members are proposed in page 2. Health agents and monitors will pretest the survey.

The questionnaires will be based on the DHS questionnaire and the questionnaire WHO proposed in 2015 in its cluster survey manual revision. Additional questions on the socio-economic environment of the mother and other risk factors associated with the above-mentioned study outcomes will be added through consultation with the coordinating committee. Of which some questions, such as those on conversations among family members and friends about vaccination and the attitudes of vaccinators, have been pre-tested during the 2016 survey conducted by the Principal Investigator.

9. Data collection

Socio-demographic characteristics:

- Child’s age (month) : health card
- Mother’s age (year): health card, ID or other reliable sources
- Place of residence
- Parent’s education level
- Number of children under the age of 5 years (for the mother)

Information on vaccination:

- Mother’s tetanus vaccination: yes or no (vaccination card photograph)
- Child’s vaccination: yes or no (vaccination card/photograph)
- Environment of the routine vaccination (observation)
- Vaccinator attitudes (observation)

Each questionnaire survey will take approximately 30 minutes.

The stages and responsibilities of the concerned parties are summarized in Table 2 below:

Table 2: Stages and responsibilities of the concerned parties

Month	child age	event	Health worker	Surveyor	Data manager	Days
Nov -Dec 2019		Last month antenatal care visit	ensure that pregnant women is informed, consents and interviewed	obtain informed Consent/ administer 1st Questionnaire 60 days * max 8 pregnant women /half day	Check and follow-up collect of informed consent, questionnaire	

Dec -Jan 2020	up to 1st week	delivery-birth explanation /distribution 1st child vaccination BCG/OPV 0	Distribution and Oral Explanation		Collect data on # distributed and oral explanation	
Jan-Feb	6 weeks	2nd child vaccination OPV 1, Penta 1, Rota 1, PCV 1	Photo		Collect photo and upload into secure cloud storage	
Feb-Mar	10 weeks	3rd child vaccination OPV 2, Penta 2, Rota 2, PCV 2	Photo		Collect photo data and upload into secure cloud storage	
Mar-April	14 weeks (3.5 months)	4th child vaccination OPV 3, Penta 3, PCV 3, VPI	ensure mother is interviewed and photographed	administer 2nd Questionnaire & photo (60 days * max 8 mothers/ half day)	Collect questionnaire responses and photo data and upload into secure cloud storage	60 days * 16-20 mothers /day

below, activities to be conducted if additional funds are mobilized						
Sep-Oct 2020	9-10 months	5th child vaccination yellow fever, measles 1	ensure mother is interviewed and photographed	administer 3rd questionnaire & photo	Collect questionnaire responses and photo data and upload into secure cloud storage	60 days * 16-20 mothers /day
Apr-Nov 2021	16-23 months	6th child vaccination measles 2	ensure vaccination card is photographed		Collect questionnaire responses and photo data and upload into secure cloud storage	60 days * 16-20 mothers /day

Data will be collected through Open Data Kit (ODK): an open-source Android application to collect, manage, and analyze electronically collected text, data, images, and geographical coordinates in resource-limited settings (including limited connectivity) by people without an extensive educational background. ODK has been mainly used in the public health field. Tablets will be customized with a randomization application and ODK. Photographs of each vaccination chart (the page of the vaccination chart) with the telephone number of the mothers written on top and the mothers with their babies, will be taken at each visit. The vaccination chart photographs will be used to verify which vaccines have been administered and which mothers have completed vaccinations, then compiled to calculate vaccination coverage.

The health agent will also have an observational checklist (Form 4) in order to monitor whether mothers who have received the baby-wrap are using it for their child's vaccination visits.

10. Data Processing and Analysis Methods

The randomized control trial (RCT) corrects 3 possible biases:
1) selection bias, linked to characteristics of the groups
2) observation bias, linked to observation conditions
3) confusion bias linked to factors external to groups and observations.

The outcome of this study will be 1) vaccination coverage rates of antigens from BCG to Pentavalent 3, delivered in 4 visits right after delivery/birth up to 3.5 months of the infant's life; 2) difference in maternal knowledge of the vaccination calendar before and after "the talking textile," between those who receive and those who do not receive "the talking textile."

11. Follow-up and monitoring

In order to impute missing values and to verify the quality of data randomly, photographs of the vaccination chart will be taken.

12. Study schedule

The study will start at the end of October 2019, after receiving authorization by both the National Committee of Ethics in Niger and Keio University to conduct the study.

13. Data management (anonymity, archiving, access to data)

All information obtained through the maternal and child health handbook and other medical documents that could be used to identify an individual, such as birth dates, telephone numbers, and other information:

- will only be acquired with permission from the individual;
- will not be used outside of the objectives of this study;
- will be protected and archived under the supervision of the Principal Investigator;
- will be deleted once participants have been contacted for follow-up or when the necessary information has been collected, and a neutral number has been reassigned;
- all electronic data will be archived by the Principal Investigator for 5 years after the end of the study in a password-protected file;
- all information shared with outside parties will be made anonymous;
- access to all information and data acquired through the survey will only be granted by the Principal Investigator by the Division des Immunisations (DI) and the Direction des Études et Planification (DEP) of the Ministry of Public Health.

IV. EXPECTED RESULTS

- A reduction in the primary outcome of this first study phase which is the Penta 1 - Penta 3 dropout rate at the end of 3.5 months, which will be calculated from compiling and analyzing data collected from vaccination cards.

- An improvement for the secondary outcome is the difference in knowledge, motivation, and practices associated with motivation and ability between intervention and control groups at the 3rd month of intervention.
- Recognition of efforts by the government of the Republic of Niger and publicity through documentation.
- Publications in peer-reviewed international journals.

V. ETHICAL CONSIDERATIONS

1. Note

The French version of the research protocol will be reviewed by the Niger National Ethics Committee in September 2019 and the Japanese version will be reviewed at Keio University SFC Ethics Committee in October 2019. Approval, once obtained, will be annexed to this document.

2. Informed consent

The information letters and the informed consent form are annexed to this document. These letters will be translated into the Hausa and Zarma languages to be used in the interpersonal communication reinforcement training sessions for health workers, once the Niger National Ethics Committee gives its approval.

3. Responsibilities and assurance

If an interviewee shows discomfort in being interviewed, the interview will be stopped immediately. If information on vaccination is requested from the surveyor, the interviewee will be referred to the health agent.

4. Advantages, risks, and ethical considerations

In Nigerien context, women are considered to be of age if they are married, even if they might be under 18 years of age. In this case, and/or if they require permission from their husbands or mother-in-laws to be interviewed, the interview can be conducted with the presence of the husband or mother-in-law.

The participants will not be excluded due to their language, nationality, religion, ethnicity, and other characteristics. However, the surveyors must ensure that the interviewees understand study objectives and that there are no honorariums or rewards for participating in the study or the interviews.

5. Authorization

The Ministry of Public Health will inform by writing the heads of the concerned health districts and health centers. The Regional Direction of Public Health for the urban commune of Niamey will inform the neighborhood chiefs that this study is taking place.

VI. FINANCIAL CONSIDERATIONS (DETAILED BUDGET & CHRONOGRAMME)

1. Detailed Budget

ITEM	Number	Unit cost (FCFA)	Number of days		Total	$1= 591 FCFA
					FCFA	USD
National Ethics Review						
Review fees	1	**140,000**	**1**	**time**	**140,000**	237
Coordinating Committee						
Allowance for coordinating committee members	7	10,000	2	days	140,000	237
SubTotal 1					280,000	474
Tablet-use training in Niamey						
Perdiem surveyors Niamey	20	3,000	2	days	120,000	203
Perdiem health agents Niamey	40	3,000	2	days	240,000	406
Kits participants	60	1,500	1	days	90,000	152
Pause café	67	2,000	2	days	268,000	453
SubTotal 2					718,000	1,215
Field survey						
Supervisor	1	15,000	114	working days	1,710,000	2,893
Surveyors	20	10,000	**10**	half working days	2,000,000	3,384
Data managers	2	8,000	114	working days	1,824,000	3,086
Tablets for data collection	23	200,000	1	time	4,600,000	7,783
Internet	1	50,000	6	months	300,000	508
Transport allowance for surveyors	20	2,000	10	working days	400,000	677
Transport allowance for data managers	2	2,000	114	working days	456,000	772
Communication (phone cards)	43	5,000	6	months	1,290,000	2,183
Gasoline	2	475	114	working days	108,300	183
Ink for the thumbprints	20	**400**	**1**	**time**	**8,000**	14
SubTotal 3					12,696,300	21,483

Report-related costs (including editing and production of hard copies)						
Photocopies	5000	5	1	package	25,000	42
SubTotal 4					25,000	42
GRAND TOTAL					**13,719,300**	**23,214**

2. Timeline

2019	September	obtain data to match and randomize clinics National Ethics Review Committee, Niger
	October	Keio University Ethics Review Committee, Tokyo, Japan
	November	Official launch of project and study; recruitment and questionnaire interviews with pregnant women 1st vaccination visit: start of distribution of baby-wrap to mothers who use intervention centers
	December	Continue distribution of baby-wrap to mothers allocated to intervention group
2020	January	2nd vaccination: health workers record observations, photo of vaccination card
	February	3rd vaccination: health workers record observations, photo of vaccination card
	March	4th vaccination: questionnaire interviews to both intervention and control mothers, photo of vaccination card
	April	
	May	Compilation of data, analysis
	June	
	July	
	August	
	September	5th vaccination: photo of vaccination card (TBD);
	October	Survey wrap-up

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VIII. ANNEX

Annex 1 Questionnaires

Form 1: Enquête des femmes enceintes

Form 2: Les connaissances et pratiques de la vaccination de routine

Form 3 : Enquête sur les raisons principales de non-vaccination ou vaccination partielle des enfants

Form 4 : Fiche d'observation (checklist) pour les agents de santé

Annex 2 Information letter

Annex 3 Informed consent form

Annex 1 Questionnaire

Form 1: Enquête des femmes enceintes

Questions Socio-démographique

1. Numéro de téléphone portable
2. Age de la femme (nombre d'ans)
3. Langue maternel/parlé dans le ménage

   (Hausa=1, Djerma=2, Peulhs=3, Tamachek=4, Français=5, autres=6)

4. Niveau d'Education de la mère

   (Jamais été à l'école=1, Quitté l'école primaire=2, a terminé l'école primaire=3, quitté l'école secondaire=4, l'école secondaire=5, Education coranique=6)

5. Occupation de la mère (femme au foyer=1, Travail hors maison=2, fonctionnaire=3)
6. Parité chez la mère (nombre d'enfants nés, y compris les enfants nés et ont décédé avant cette dernière naissance)
7. Statut socio-économique du ménage
   a. Electricité (Oui=1, Non= 0)
   b. Propriétaire maison (Oui=1, Non= 0)
   c. Possède un véhicule (Oui=1, Non= 0)
   d. Possède des animaux ; vaches, ou moutons? (Oui=1, Non= 0)
   e. Téléphone portable (Oui=1, Non= 0)
   f. Télévision (Oui=1, Non= 0)
   g. Eau robinet
8. Disponibilité du carnet de santé mère et infantile (il faut voir la carte oui=1, non=2)
9. Si non, indiquer les raisons de non disponibilité

   (inaccessible=1, jamais reçu=2, cout=3, perte=4, détruite=5, ne sais pas=6, autres=7)

Les Vaccinations de la femme

1. BCG Cicatrice: (Oui=1 Non= 0)
2. Tétanos 1 (Date / mois / année, Lieu de Vaccination)
3. Tétanos 2 (Date / mois / année, Lieu de Vaccination)
4. Tétanos 3 (Date / mois / année, Lieu de Vaccination)
5. Tétanos 4 (Date / mois / année, Lieu de Vaccination)

6. Tétanos 5 (Date / mois / année, Lieu de Vaccination)

Questions sur la motivation, capacité, signes par rapport à la vaccination

1. Combien de temps faut-il mettre pour se rendre à pied au poste de santé ? (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)
2. Combien de fois devez-vous amener l'enfant au poste de santé pour qu'il soit protégé complètement? (5 fois=1, autres résponses=0)
3. Combien de fois devez-vous aller au poste de santé pour que tu sois protégé contre le tétanos? (5 fois=1, autres résponses=0)
4. En général, êtes-vous satisfait des services de vaccination offerts? (Oui=1 Non= 0)
5. Parlez-vous de votre expérience au poste de santé avec vos voisins et amis ? (Oui=1 Non= 0)
6. Vous attendez approximativement (en moyen) combien de temps pour la consultation prénatale (CPN)? (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)
7. Pensez-vous qu'il y ait des personnes plus indiquées pour parler de la vaccination? (Oui=1 Non= 0)
8. Si oui, lequelle? (personnel de santé=1, mari ou chef de ménage=2, parents=3, belle-parents=4, amis, collègues, voisins=5, relais communautaires=6, chef de quartier ou village=7)
9. Parlez-vous de la vaccination en famille? (Oui=1 Non= 0)
10. Combien de fois devez-vous amener l'enfant au poste de santé pour qu'il soit protégé complètement contre les maladies cités? (5 fois=1, autres=2)
11. Qui prendra la décision par rapport à la vaccination dans votre famille ? (personnel de santé=1, mari ou chef de ménage=2, parents=3, belle-parents=4, amis, collègues, voisins=5, relais communautaires=6, chef de quartier ou village=7)
12. Qui vous encourage le plus de vacciner? (personnel de santé=1, mari ou chef de ménage=2, parents=3, belle-parents=4, amis, collègues, voisins=5, relais communautaires=6, chef de quartier ou village=7)

DISTRICT SANITAIRE

nom de CSI

Date de l'interview _____/Oct/2019

Form 2: Enquête des mères sur la motivation, capacité, signes par rapport à la vaccination

1. Numéro de téléphone portable
2. Date de naissance de l'enfant (JJ/MM/AA)

   Si le jour du mois est une estimation, écrire « 99 » après la date ; Si le mois est inconnu, écrire« 9 » pour le jour et le mois

3. Sexe de l'enfant (M/F)
4. Lieu de l'accouchement

   (Domicile par personnel formé=1, Domicile par personnel non formé=2, Structure de santé=3)

5. Combien de temps faut-il mettre pour se rendre à pied au poste de santé ?

   (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)

6. Vous attendez approximativement combien de temps au poste de santé avant que votre enfant soit vacciné ?

   (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)

7. En général, êtes-vous satisfait des services de vaccination offerts? (Oui=1 Non= 0)
8. Combien de fois devez-vous amener l'enfant au poste de santé pour qu'il soit protégé complètement contre les maladies cités? (5 fois=1, autres=2)
9. Qu'est-ce que la lune signifie pour vous? (Le nombre des mois=1, autres=0)
10. Il y a combien des mois entre le 4ème et le 5ème visite au centre de vaccination? (6 mois=1, autres =0)
11. Quel est la première et la dernière vaccination donné à l'enfant? (BCG et rougeole=1, autres=0)
12. Saviez-vous que la deuxième dose de rougeole et maintenant offert gratuitement à 18 mois? (oui=1, non=0)
13. Parlez-vous de votre expérience au poste de santé avec vos voisins et amis ? (oui=1, non=0)
14. Combien de temps faut-il mettre pour se rendre à pied au poste de santé ?

    (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)

15. Vous attendez approximativement combien de temps au poste de santé avant que votre enfant soit vacciné ?

    (moins d'un demi heure=1, moins d'une heure=2, une heure et demi=3, 2 heures=4, plus que 2 heures=5)

16. Qu'est-ce que vous faites pendant l'attente? (Parle avec les autres femmes qui attendent en s'occupant de l'enfant=1, Rien=0,)
17. Avez-vous enregistré la naissance de votre enfant? (oui=1, non=0)
18. Pensez-vous qu'il y ait des personnes plus indiquées pour parler de la vaccination? (Oui=1 Non= 0)
19. Si oui, lequelle?

(moi-même=1, personnel de santé=2, mari ou chef de ménage=3, parents=4, belle-parents=5, amis, collègues, voisins=6, relais communautaires=7, chef de quartier ou village=8)

20. Avez-vous consulté ces personnes? (Oui=1 Non= 0)
21. Avez-vous observé des effets secondaires lors de la vaccination vos enfants? (Oui=1 Non= 0)
22. Vous a-t-on informé des actions à prendre au cas où il y a des effets secondaires? (Oui=1 Non= 0)
23. Combien vous a couté la vaccination (la carte/le carnet, le transport pour y accéder)? (0 fcfa=1,à peu près 500 fcfa=2, entre 500 et 1000 CFAs=3, entre 1000 et 2000 fcfa=4, entre 2000 et 5000 fcfa =5, +plus que 5000 fcfa =6)
24. Parlez-vous de la vaccination en famille? (Oui=1 Non= 0)
25. Qui prend la décision par rapport à la vaccination de l'enfant dans votre famille ? (moi-même=1, personnel de santé=2, mari ou chef de ménage=3, parents=4, belle-parents=5, amis, collègues, voisins=6, relais communautaires=7, chef de quartier ou village=8)

DISTRICT: _____

CSI:_____

Date enquête : _____/ / 2020

Form 3 : Enquête sur les raisons principales de non-vaccination ou vaccination partielle des enfants

Ne poser qu'une seule question : Pourquoi l'enfant n'a-t-il pas été complètement vacciné ?

Marquer les raisons principales évoquée par les mères

Insuffisance d'information des parents

- Insuffisance d'information sur la nécessité de vaccination
- Insuffisance d'information sur la nécessité de revenir
- Insuffisance d'information sur le lieu de vaccination
- Insuffisance d'information sur les horaires de vaccination
- Insuffisance d'information sur des effets secondaires
- Insuffisance d'information si l'enfant malade peut être amené
- A des idées erronées sur contre-indications

Insuffisance de motivation des parents

- A reporté à une date ultérieure
- Ne fait pas confiance à la vaccination à cause des rumeurs/croyances sur la vaccination
- Mère trop occupée
- Père ou mère en voyage ou absent
- Négligence de la mère ou du père

Obstacles liés aux services de vaccination

- Lieu de séance trop éloigné
- Horaire de vaccination ne convient pas
- Vaccinateur absent
- Vaccinateur a dit de revenir
- Vaccin non disponible
- Enfant malade amené mais non vacciné
- Attente trop longue
- Coût élevé du transport
- Vaccination payante
- Mauvais accueil par les vaccinateurs
- Autres*

Form 4 : Fiche d'observation (checklist) pour les agents de santé

1. Est-ce que la mère utilise le pagne du projet?
2. Il est utilisé comment ?
3. Est-il utilisé correctement?
4. D'autres observations

Annex 2 Information letter to study participants

Titre de l'étude: Effet du pagne comme moyen de communication pour la vaccination

Chercheur(s) principale(ux) : Mika KUNIEDA

Merci beaucoup pour votre participation.

L'objectif de cette étude est d'explorer l'effet du pagne comme moyen de communication pour la vaccination. Dans cette étude, nous aimerions vous poser des questions et de photographier la carte de vaccination de votre enfant.

Ce que nous apprenons à travers cette étude va nous aider à comprendre comment nous pouvons mieux protéger vos enfants contre les maladies infectieuses.

Cette étude est soutenue par les fonds de la fondation Bill et Melinda Gates et approuvé par le comité d'éthique national du Niger. Votre participation à cette étude est entièrement volontaire. Vous pouvez refuser de répondre à toute question ou si vous choisissez vous pourrez retirer votre consentement à participer à tout moment sans pénalité. Il y a aura 3 entretiens au cour d'un an. Chaque entrevue prendra environ 30 minutes. Toutes les informations que nous recueillons resteront strictement confidentielles et votre réponse ne sera jamais identifiée.

Vous pouvez poser des questions sur l'étude à ce moment ou plus tard sur cette étude; S'il vous plaît ne pas hésiter à contacter :

Date: Oct 2019

Dr.
Ministère de la Santé Publique
Tel: +227-
E-mail:

Mme. Mika Kunieda
Tel : +227-
E-mail: mika.kunieda@gmail.com

Annex 3 Informed Consent Form

À l'investigatrice principale Mme. Mika KUNIEDA

Titre de l'étude: Effet du pagne comme moyen de communication pour la vaccination

Après avoir lu et ayant reçu les explications sur le contenu de cette étude, je comprends ce qu'on attend de moi en tant que participant à l'étude.

Je comprends:

1. Le but et la procédure de l'étude;
2. Le consentement d'être interviewer sur base d'une questionnaire ;
3. Que je ne vais pas être placé(e) dans une mauvaise situation (sous aucun dommage) ni d'inconfort;
4. Je peux refuser de répondre à toute question si je ne veux pas répondre;
5. Que je peux me retirer de l'étude à tout moment sans donner de raison, sans aucun dommage ou sans affecter les services de santé que je dois recevoir;
6. Je ne peux pas me retirer de l'étude après la collecte des données;
7. Que toute information que je fournisse sera strictement traitée de façon confidentielle et que je ne vais pas être identifié(e) dans le rapport du résultat;

Date : / 10/ 2019

_____

Signature ou une empreinte digitale de la personne
qui a donné son consentement

Annex 4 Approval from Ethics Review Committees (to be added once obtained)