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A PROPOSAL FOR A NATIONAL HOUSEHOLD SURVEY ON THE IMPACT OF SOCIAL MEDIA ON THE ACCEPTANCE OF COVID-19 VACCINE IN THE GHANAIAN SOCIETY

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TABLE OF CONTENTS

CONTENTS

CHAPTER ONE

INTRODUCTION

1.1 Background of The Survey

The COVID-19 pandemic also known as the Coronavirus pandemic, is an ongoing pandemic caused by a severe acute respiratory syndrome coronavirus 2. The outbreak which was first identified in Wuhan, China, in December 2019 has claimed a lot of lives after affecting more than 3 million people worldwide. This disease has not only claimed lots of human life but also halted global activities. The impact of this pandemic has caused a lot of economic downturns as revenue is being lost, unemployment is skyrocketing and other adverse effects on the economy of countries.

Due to the damaging impact of the coronavirus, various countries and international organisations have invested heavily in the production and distribution of vaccines, to control the spread. Numerous conspiracy theories about the nature and origin of Covid-19 have circulated on the internet since the pandemic was declared last year, and have only been spurred on by the introduction of numerous speedily developed vaccines. But it's not just misinformed members of the public peddling false or distorted information online – organised campaigns are actively working to undermine confidence in the Covid-19 vaccine rollout. Currently, there are three authorised and recommended vaccines by the World Health Organisation. These are the Pfizer-BioNTech, Moderna and the Johnson and Johnson's Janssen vaccine. Governments are quickly rallying vaccines against the COVID-19 disease, with success depending on sufficient uptake. Yet, there is a rise in vaccine hesitancy primarily due to trust issues, complacency, and misinformation primarily from social media. Trust is crucial in ensuring compliance with public health measures. Governments and health experts need to communicate honestly and with a degree of certainty so as to not erode the trust of the public. COVID-19 is not only a pandemic, but an "infodemic" of complex and dynamic information-both factual

and incorrect. This can generate vaccine hesitancy, which the WHO listed as one of the top 10 threats to global health in 2019. Where the public acquires knowledge and information plays a major role in the building up of trust. The growth of Internet usage in the 21st century and reliance on social media sources such as YouTube, Facebook, Twitter, Instagram, and TikTok has changed the landscape of information gathering. 72% of Americans and 83% of Europeans use the Internet as a source for health information. Conspiracy theories and anti-vax beliefs are associated with a greater reliance on social media for health information, but research on this topic until now has primarily used small, selective samples (e.g., MTurk). In order to find an empirical solution to this covid-19 vaccine shot hesitation in Ghana due to misinformation on social media, we will be conducting a national household survey in the Ghanaian society.

1.2 Problem Statement of the Survey

Even though, the benefits of social media especially in terms of information dissemination in the fight against the coronavirus pandemic cannot be understated, it has also served as a medium and platform where people continue to share false information about the covid-19 vaccines. All over the world, not excluding Ghana, individuals both expert and non-expert in the field of health have unfortunately, misinformed and shared wrong information about the vaccines. The wide audience social media provides, leads to the quick spread of such falsehoods. This in turn leads to the hesitation in taking these vaccines to curb this pandemic. These misleading information and perceptions on social media regarding to covid-19 vaccines may affect social trust, lead to general conspiracy or covid-19 misinformation beliefs.

Individuals who obtain health related information from social media platforms such as YouTube, which have recommendations tailored by watch history are less likely to be willing to become vaccinated. Taking Facebook as an instance, an analysis of 1300 Facebook pages during the 2019 measles outbreak found that anti vax pages grew by 500%, compared with

50% growth of pro vaccine pages. Social media as a channel of information is prone to the spread of falsehood. This spread of falsehood on social media is a major cause of hesitancy towards the COVID 19 vaccines in the Ghanaian society.

1.3 Purpose of the Survey

This national household survey seeks to investigate the influence of social media on covid-19 vaccine acceptance in the Ghanaian society and also examine the effect of misleading information from social media in the fight against the coronavirus pandemic in Ghana. This will help the government and other relevant stakeholders in planning and making decisions in the fight against the coronavirus pandemic.

1.4 Objectives of the Survey

At the end of the implementation of this survey, the following objectives will be met.

- To identify the best way of handling anti-vaxxers in the Ghanaian society.
- To examine the impact of social media on the Covid 19 vaccine acceptance in Ghana.
- Finally, to find out the best ways of educating the Ghanaian society against false information about the COVID 19 vaccine, they may come across on social media.

1.5 Significance of the Survey

The significance of this study cannot be overemphasized particularly when the social media has now turned into major platforms where people get access to both truthful and misleading information especially on these covid-19 vaccines. It is in this light that this paper seeks to identify the extent to which the phenomenon of the social media has influenced the acceptance of the introduction of the covid-19 vaccines in the Ghanaian society.

1.6 Audience of the Survey Results

The target audience for this survey results includes the following:

- Ministry of Health and Information. These ministries are mandated to formulate health policy, facilitate the free flow of timely and reliable information and feedback between the Government and the public and to assist in the development, co-ordination of policy.
- The government of Ghana, investors and other key stakeholders who are helping in the fight against the covid-19 virus will have a copy of the survey result.

From the preceding bulletins above, these two key audiences will be considered in this survey because they play key roles in all the policies making, spreading of information, allocation of budget and fighting against the spread of the virus.

1.7 Contact Office and Person

This section provides the basic information about the authors of this survey proposal.

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1.8 Organisation of the Study

This section outlines the project's layout and organization. There are four (4) chapters in the study. The backdrop, the statement of the problem, the purpose, the objectives, the significance, the audience, the contact office, and the survey organization are all included in Chapter One (1) of the study. The literature review relevant to this topic is presented in Chapter two (2). The theoretical foundation and methodological aspects of the investigation are covered in Chapter three (3). The empirical outcomes of the data analysis and the study findings are specified and emphasized in Chapter four (4).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents a brief review of related literature to this survey topic.

2.2 Related Articles on Social Media Usage and Covid-19 Vaccinations

Since the inception of the Coronavirus pandemic and the subsequent development of its vaccine, a number of researchers have expressed their thoughts on the spread of misinformation about the virus and its vaccinations, which leads to vaccine hesitancy. According to the APO GROUP (2021), data collected regularly since March 2021 in 20 African countries show that erroneous claims about COVID-19 vaccines are by far the most widespread myths around the pandemic, and that people's apprehension to get vaccinated is primarily due to a fear of side effects.

Social media has often been cited as the main driver in the spread of such lies. Social media refers to online services or website that participants can use to share information, news, videos, pictures, messages, create online communities and receive feedback from people on global scale (Wright et all, 2018). Wilson and Wiysonge (2020) explains, that social media, while providing an unprecedented capacity for the public to communicate, has also been a major factor in the rise of fringe opinions damaging to public health. Reconciling principles of free speech with the policing of social media for damaging falsehoods remains a conundrum for democracies. This is further backed by Susarla (2021), who asserts that a study in the UK and the US found that exposure to online misinformation about COVID 19 vaccines reduced the number of people who said they would get vaccinated and increased the number of people who said they would not.

In agreement, Argyris (2021) explains that since social media has rapidly grown as a source of news, more and more people are obtaining health information from social media. As a result, visual messaging on social media has significant associations with people's intentions to get vaccinated - not only against COVID-19, but also for other immunizations. Vaccine hesitancy is not a new phenomenon, but the proliferation of anti-vaccination misinformation through social media has given it new urgency, especially in light of the coronavirus pandemic and hopes for rapid development and deployment of a vaccine Wilson and Wiysonge (2020).

According to researchers, social media companies are taking huge steps in limiting misinformation about the COVID 19 vaccines, even though they are still very much distanced from their target. A report by the Centre for countering Digital Hate criticized social media companies for not removing anti-vaxxers posts on their platforms. They highlighted that social media accounts held by anti-vaxxers, have had their following grow by at least 7.8 million since 2020.

This nationwide household survey aims to look into the impact of social media on covid-19 vaccine acceptability in Ghanaian society, as well as the impact of false information on social media in the fight against the coronavirus pandemic. This will assist the government and other relevant stakeholders in planning and making choices in the coronavirus pandemic fight.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The methodologies and processes employed in the survey proposals are discussed in this portion of the dissertation.

3.2 Survey Timeline and work plan for the survey

This section contains the survey's chronology, expected duration, lunching date, and closing date. Every survey implementation activity necessitates rapt attention. Survey implementation is a significant task that needs extensive planning, scheduling, and movement of troops in the field in order to gather data from the population sampled. This survey is expected to take 24 weeks (6 months), and increased publicity will be done to raise knowledge of the survey's start date. The **Table 3.1** below provides an overview of all activities that will take place prior, during and after the start of the survey.

TABLE 3.1: Survey Timeline and work plan for a national household survey of 5000 households in Ghanaian society.

TASKS	WEEKS OF THE SURVEY																							
Management and logistics	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Appoint core survey team	*																							
Purchase computers		*																						
Purchase survey materials		*																						
Publicity			*	*																				
Vehicle rentals		*																						
Questionnaire design																								
Set objectives of questionnaire					*	*																		
Prepare draft questionnaire						*																		
Pretesting							*																	
Sampling																								
Set sample size and frame								*																
Draw samples								*																
Set fieldwork plan									*															
Listing and mapping PSUs									*															
Staffing and training																								
Prepare first data entry program										*	*													
Prepare final data entry program											*	*												
Data entry manual and training data entry staff													*											
Interviewer training													*											

Fieldwork													*	*	*	*	*						
Management and documentation																							
Analyse first half of data																		*	*				
Initial analysis of data																				*	*		
Final report and documentation																						*	*

3.3 Definition of Target Population

The target population of a national household survey is the entire group of units for whom survey data will be chosen and inferences drawn. The target population will consist of all individuals or persons in the 265 primary sampling units (E. As) that will take into account the various 10 regions in Ghana as proposed by the Ghana statistical service in 2010, namely Greater-Accra, Ashanti, Eastern, Western, Central, Northern, Upper East, Upper West, Brong-Ahafo, and Volta Region.

3.4 Defining Sampling Frame

A sampling frame is a physical depiction of the population to be surveyed in the study. It includes a list of all persons who can be sampled from a population, which may include individuals, households, or institutions, as well as the enumeration zones. Ghana has around 37,642 enumeration areas, according to the Ghana Statistical Service (GSS), as of the 2010 population and housing census. When it comes to selecting the appropriate sampling size, there are three major considerations:

- Survey estimates' precision (reliability)
- Data quality of the acquired data

- Time and money spent on data gathering, processing, and dissemination of estimates

The sample frame will also be stratified into 265 enumeration areas, owing to the 37,642 E.A suggested by the Ghana Statistical Service in 2010 (P.H.C). In order to take advantage of the precision and accuracy, the sampling frame's sample size will be calculated using the relative error approach.

3.5 Fixing the problem of sampling frames

Using Existing sampling frames will be problematic at the PSU level since the detailed information will be outdated due to people relocating from one section of the country to another. Non-coverage, duplicate listings, clusters of elements, and blank frame lists are among the issues with the EAs or PSUs issued by the Ghana Statistical Service in the country. In the event that the existing list to be utilized for this survey is under-coverage, that is, the frame does not cover all of the elements in the target population, this survey will be conducted.

Natural catastrophes, conflict, and a variety of other things could all contribute to this dilemma. Another issue that must be resolved prior to the survey's execution is the listing of blank frames. Some of the units in the list won't supply the right observational units to achieve the survey's objectives, or they won't have any elements in the research population. Additionally, duplicate listings are a problem that must be addressed. Some of the items on the list appear more than once in the research population in this situation. When a single listing on the sample frame really consists of numerous units in the research population, the problem of clusters of elements develops, resulting in unequal odds for them to be selected. When a single listing on the sampling frame really comprises of numerous units in the target population, the problem of clusters of elements occurs. In the event of non-coverage, the survey will use a good

stratification variable to totally split the population into mutually exclusive and exhaustive groups. To reduce non-coverage, the interviewers will receive detailed documentation and training. Additionally, the issue of cluster units will be handled by adjusting the weights of the components that are clustered on the list.

3.6 Defining Master Samples

Out of the 37,642 census areas in Ghana, the 265 enumeration areas were the first to be identified using **explicit stratification**. The Ghana Statistical Service (GSS) provides enumeration areas for the country of Ghana, which are known as Primary Sampling Units (PSUs). The secondary stage of the sample will be a household picked from 37,642 households as reported by the Ghana Statistical Service (GSS) in the 2010 PHC.

3.7 Sample Design Stages

The number of sampling phases is determined by the parameters of the sampling frame and the study objectives in any sample design. Despite the fact that sample design for this study is not uniform across countries, it follows a similar general standard: simplicity, probability sampling (non-zero known chance of selection), clustering, and stratification. Depending on the percentage of size of the territory units in the sampling frame, at least two stages of selection are usually necessary in most surveys. The survey will employ stratified multistage clustering. This is for two key practical reasons. The following are some theories as to why this is:

i. In the absence of weak household or address listings, we must first sample a geographical unit and then generate lists of households or addresses just within those units.

ii. Second, multistage data collection is intended to reduce and control data collection costs.

Because of the overcrowding in various places including Greater Accra and Ashanti, most people sleep at bus stations, kiosks, and various abodes that may or may not have distinct

designations as a home. As a result, some of the natural judgments made by PSUs have been or will be altered in light of the fact that some do not have the attributes of a good PSU. In precisely, the technique consists of three sample selection arrangements. PSU, SSU and TSU.

3.8 Design Effects

This survey will use a clustering sample technique, and the main goals in this part are to reduce the design effect, save time, and obtain precise estimates. The ratio of the variance of the sophisticated multistage sampling design to the variance of the basic random sample design is defined as Design Effects.

Mathematically;

$$\boldsymbol{Design\ effect} = \frac{\boldsymbol{Variance\ of\ the\ complex\ design}}{\boldsymbol{Variance\ of\ the\ simple\ design(SRS)}}$$

Using the clustering sampling design, the simplified design effect is given by;

$$\boldsymbol{d}^2(\boldsymbol{y}) = 1 + (1 - \boldsymbol{b})\boldsymbol{\rho}$$

Where, $\mathbf{d}^2(\mathbf{y})$ is the design effect, $\mathbf{b}$ is the average number of people in each household and $\boldsymbol{\rho}$ is the intra-cluster correlation between the enumeration areas. To meet the small design effect of the survey sampling technique, small cluster sample sizes was used to ensure more homogeneity and precision in the estimation of the parameters of interest.

3.9 Sampling Errors

The survey is aware of the possibility of sample flaws. Due to the lack of a draw, the survey findings are likely to deviate from those of the target population. The sample sizes will be raised to ensure exact estimates, in order to reduce the gaps between the estimates and the genuine population data.

3.10 Non-Sampling Errors

This survey is aware of the potential for Non-Sampling Error to occur. They are inaccuracies that occur as a result of extrapolating data from specific units enumerated to the full research population. As summarized below, some of the reasons and treatments for these errors have been addressed. The difficulties found include sampling discrepancies, questionnaire design bias, inadequate coverage, and non-response. This survey will employ methods to reduce the likelihood of biases being introduced, such as field personnel training, training manuals, updating the sample frame listings, and other measures to ensure the survey results are of high quality.

3.11 Non-Response and Non-Response Errors

This survey is likely to experience another sort of Non-Sampling Error. When no data or response is collected from the individual sample unit, this error occurs. Language problems, natural calamities, and other factors may have contributed to these blunders. Repeated visits, call-backs, the substitution of fresh units, and accounting or correcting for the error in the survey results reporting will all be used to address this problem. This measure will aid in the reduction of non-response mistakes.

3.12 Coverage and Non-Coverage Errors

It is also probable that this survey will not be able to cover all of the sample units in the EAs that were sampled. Areas where there is a language barrier will be treated as non-coverage rather than non-response in this survey. This will help to reduce the number of errors. Another remedy that will be implemented is the enhancement of field procedures, which will compensate for non-coverage errors.

3.13 Measurement Errors

Although measurement on experimental units is not error-free, it can be decreased. When the values of the characteristic provided by the tertiary sample units diverge from the true value of that characteristic, this type of mistake occurs. Bias in questionnaire design, data collection methodologies, interviewers' appearances, and respondents' effects in answering questions are some of the sources that have been found. The following measures will be used to correct these errors: checking interviewers' responses to see if they falsified responses, determining whether interviewers understood the procedures taught during training, estimating sample variances, estimating biases using record checks from previous studies, reverse check-ups, forward checks, and a full design record.

3.14 Questionnaire Design

This survey will be using well designed questionnaire to collect data by the interviewers who will visits the respondents in their various homes. That is to say, the sampling unit is the household to be precise. The module approach is useful since it allows you to break down the questionnaire design into steps. It is a short questionnaire designed for everyone in the target population's families. This is a household survey that aims to determine the best approach to deal with anti-vaxxers in Ghanaian society, as well as the best ways to educate Ghanaians about misleading information they may encounter on social media regarding the introduction of the vaccines. We guarantee that this information will not be shared with anyone else, and that it will be kept as private as possible. As a result, the information gathered will only be utilized for research purposes.

SOCIAL MEDIA USAGE NATIONAL HOUSEHOLD SURVEY

Hello, our names are David and Michael, and we are University of Ghana students conducting a survey for the Ministry of Health and Information. We are gathering information on social media usage, with a particular focus on COVID-19 vaccinations. It should take you less than 5 minutes to complete this survey. All information obtained from this survey will be kept private and used solely for the purpose for which it was collected, namely, for the purpose of our research study. Please answer the questions and ask any questions you may have.

1. Personal Characteristics

First, we would be interested to know a bit more about your personal characteristics

Q1	What is your age?	1=Below 15 years 2=15-21 years 3=22-30 years	4=30-45years 5=45-60 years 6=Above 60 years
Q2	What is your gender?	1=Male 2=Female	3=Others
Q3	Nationality	1=Ghanaian 2=Not Ghanaian	
Q4	Region	State your current region ……..	
Q5	Educational background?	1=Never attended school 2=Primary and JHS 3=SHS	4=BSc/ B. A/HND/Diploma 5=Masters/Doctorate 6=Others

2. **Knowledge and Experiences on Social media Usage**

Q1	Which devices do you use to visit the internet? Tick all that apply	1=Mobile phones 2=Desktop computers/Laptop 3=Tablets and iPad	4= None
Q2	Which social media platforms do you have an account?	1=Facebook 2=Twitter 3=WhatsApp 4=YouTube	5=Instagram 6=TikTok 7=Others
Q3	Which of the Social Media platforms are you most active?	State one from above? ……	
Q4	How much time do you often spend on social media daily?	1=1 hours or less 2=2-3 hours 3=4-5 hours	5=5 hours or more 6=Never
Q5	What do you consider as the rationale for social media?	1=Entertainment purposes 2=Information purposes 3=Communication purposes	4=Attract the attention of people 5=Others (Specify)

3. Covid-19 Information on social media

Q1	Which of the following sources of information do you use to stay informed about COVID 19? Tick all that apply	1=newspapers 2=radio 3=television 4=news websites	5=social media 6=Consultation with health professionals 7=other
Q2	Have you come across any Covid 19 related post on social media?	1=Yes 2=No	
Q3	Has such post of social media influenced your decision on taking the COVID 19 Vaccine?	1=Yes 2=No	
Q4	If yes, did this negatively or positively have an influence on your attitude towards taking the vaccine?	1=Positive 2=Negative	
Q5	Have you taken any of the covid-19 vaccine so far?	1= Yes 2= No	

3.15 Formation of Team

Before the questionnaire design process, a team will be formed. This team will consist of networking experts, data analysts, project managers, researchers, data collectors, interview supervisors, and other critical personnel whose services will be utilized. This group will assist in the creation of the questionnaire that meets nearly all of the survey's objectives.

3.16 Developing of draft questionnaire

Following the formation of the team, the team will convene to translate all of the survey's required information into a questionnaire format, however this will only be a draft.

3.17 Field testing and finalizing the questionnaire.

The team will take the developed questionnaires to the field and use a few enumeration areas to pre-test the questionnaires. Problems and input from the field will be discussed, and the survey's final questionnaire will be prepared.

3.18 Pretesting

Pretesting is a crucial part of the questionnaire design process since it allows you to get an idea of how well the draft questionnaire pages operate by putting them through their paces with a small group of people. Pretesting is possible to do multiple times. Begin early in the questionnaire development process. Pre-testing will only be done once in this survey. This guarantees that they have received comprehensive training, that their role is defined throughout interviewer training, and that sufficient staff is available to correct and guide the practice sessions and tests that take place during interviewer training.

3.19 Pilot Survey

Another way to ensure quality is to use testing as a mini-survey of the main survey. This time, all parts of the questionnaire's modules will be tested in the field with field personnel, data

entry staff, and other supervisors present to familiarize themselves with the field experience prior to the survey.

3.20 Recruitment

The part of the survey organization when persons are chosen for the survey's fieldwork is called recruitment. It considers the amount of people needed to conduct interviews and speak each language in which the survey will be done. For this survey, university students on long holiday breaks as well as part-time contract workers will be recruited to collect data. Experts who can confirm their participation in two or more household surveys will be recruited as field officers or supervisors for this survey. This will result in excellent data collecting and processing.

The field staff's quality determines the quality of a household survey to a large extent. As a result, only the most qualified people will be asked to participate in the survey. Few organizations in impoverished countries have a regular field staff of interviewers and supervisors, and even if they do, most interviewers will be men.

3.21 Providing Training and Writing Training Manuals

The quality of people recruited determines the performance of any data collection exercise (2010 – PES Report, December 2012). Because this survey will use a face-to-face data collection approach, interviewers will need to be appropriately trained in order to improve data quality and response rate.

Training will be provided by local personnel, who will be supplemented by staff who have been trained for the pre-test. The production of training manuals for all personnel who will be instructed, including interviewers, supervisors, and data entry employees, is one of the most significant aspects of training. Additionally, unique manuals are required for each trainee. The goal of the survey will be explained in every training manual. The basic work to be completed

by the staff to whom the manual pertains should be detailed as well. (United Nations Statistics Division, 2005).

All training sessions will be held in a centralized location, such as Accra, while maintaining social distance to guarantee that all trainees receive the same instructions. The survey aims to collect high-quality data, thus the training will include plenty of time for practice, such as interviewing actual houses using the questionnaires. Furthermore, comprehending data gathering will aid in attaining the survey's objectives, and no detail will be overlooked. Furthermore, by attempting to train more people than are required, and with the full support and attention of the survey team, a high-quality survey can be ensured. In the third month of the survey period, training will take place.

3.22 Fieldwork and Quality Control

Fieldwork comprises going to the sampled residences and interviewing the residents. It is normally best to start fieldwork right after training to avoid forgetting what was taught during the training time. The work plan's appendix section has a detailed schedule for this survey. Following the training, three fieldwork teams will be created, each with its own supervisor. Interviewers are chosen based on their performance in class and fluency in one of the indigenous local languages. In particular, Ga, Twi, Ewe, and Dagomba.

3.23 Equipment and Materials

Vehicles and bicycles are required in many developing countries to enable team leaders and supervisors/interviewers to go around quickly. Folders, clipboards, pencils, pencil sharpeners, notebooks, and petrol (for vehicles) will all be available in sufficient quantities for use during the survey.

3.24 Management of Survey Operations

The importance of prudent, more effective, and efficient administration of activities at multiple stages cannot be overstated in a complicated home survey like this. As a result, from the project manager to the interviewer, there will be a clear, distinct, and well-defined line of command.

3.25 Publicity

Most surveys are unsuccessful, in part because of a larger non-response rate as a result of increased refusals. As a result, some volume and intensity of public relations campaigns must be considered in our survey. Depending on the conditions, several methods of publicizing the survey will be used. Thus, radio, television, and newspaper advertisements can supplement posters in the country's urban areas. Local languages advertisement radio messages and posters could be employed in rural areas.

3.26 Data collection

Interviewers, data entry staff, and other field employees will be deployed after the publicity campaign is completed. Data will be collected by these interviewers and supervisors. Communication with supervisors and other workers will improve in order to report any anomalies that may arise when collecting data in the field. This ensures that the field results are of high quality and reliable.

CHAPTER FOUR

4.1 Data Processing

Following data collection, data will be prepared using a data management system that will work with data that has arrived at a central place as quickly as feasible. This is significant because there are two separate explanations for this. First, the work will be double-checked to ensure that there are no major issues with the data that has arrived at the survey's central office. Second, the sooner information reaches analysts and policymakers, the more important it becomes.

4.2 Debriefing

All supervisors, interviewers, and data entry workers should attend a brief meeting with the core survey team to address issues that have arisen and potential solutions for future polls. Suggestions gleaned from the field will be used to improve the survey. This discussion should take place as soon as possible after the survey is done, before the field and data entry employees forget about their experiences. Detailed records will be preserved, and recommendations will be made, so that they can be used in the next survey of this type.

4.3 Description of Statistical Package to be used in the survey

Statistical tools such as XLStat, R software, and SPSS will be used to aid with this study. These programs were chosen because they have an easy-to-use interface and can store a significant amount of data. It also gives the command window the ability to code something that can't be done with drag-and-drop. The acquired data will be subjected to various statistical tests using this software tool. These statistical tests are used to make accurate conclusions and predictions based on the information gathered.

4.4 Data Analysis

The data analyst will enter the data from the field into the software by performing numerous comparisons to ensure that the correct data is entered for the analysis. Following the completion of several tasks that meet the survey's requirements, a dissertation or report will be written that discusses the findings, interpretations, and suggestions.

4.5 Assessing the Quality

It is required to evaluate the survey's quality. One of the primary objectives of this survey is to identify the best way of handling anti-vaxxers in the Ghanaian society quality, which is described as the methods and procedures that will be followed for data collection, processing, and reporting in order to assure reliability and validity. The following methods will be used to evaluate the survey's quality. This survey will incorporate quality throughout all of the survey's stages. First, it will analyse the survey institutions for the survey, as well as the sampling techniques, questionnaire translations from other languages, field staff training, survey implementation procedures, data entry processing, survey quality indicators, county reports, and site visits. The survey's quality assurance will be ensured by the rigorous inspections carried out during these phases.

4.6 Report Writing and Dissemination of Results

Following the core survey report, a report on key findings will be issued. It is critical to focus on the survey's findings, which will act as a reference and development tool. As far as anti-vaxxers in Ghana are concerned, a thorough explanation and elaboration on current difficulties, findings, and future areas of interest will be addressed. The study's findings will be conveyed through a written report with tables, graphs, and figures summarizing the findings in online news outlets, copies to the Ministry of Health and Information, and a public talk. The results will be preserved on storage devices as well, with cloud computing providing backups.

4.7 Utilization of Results

This survey will be used as a reference point for subsequent household surveys on Covid 19 and its vaccines. The Ministry of Health and Information should be able to act on the project's recommendations to help research and assess the impact of social media on covid-19 vaccine acceptability in Ghanaian society, as well as the impact of false information on social media in the fight against the coronavirus pandemic. Also, the Ministry of health will benefit greatly from the results of this survey, since increasing the acceptance rate of the Covid 19 vaccines is a major goal in their fight against the spread. This will aid the government and other relevant stakeholders in developing both long- and short-term plans and making good decisions in the battle against the coronavirus pandemic.

4.8 Budget

Financial resources are one of the restrictions on what can be done in most Household surveys. In this regard, the budgeting for this survey receives a lot of attention. A precise budget was created to facilitate seamless survey activities. The survey's primary elements and associated expenses are listed in the table 4.61 below.

TABLE 4.61: Budget for a national household survey of 5000 households in Ghanaian society, which includes all 10 regions according to the 2010 EAs.

Item	Number	Amount of Time	Cost per Unit	Total Cost
Base Salaries				
Project Manager	3	5 months	2500	37500
Data manager	2	2 months	2000	8000
Fieldwork manager	2	3 months	1800	10800
Accountant	2	3 months	1550	9300
Interviewers	10	2 months	500	10000
Data entry operators	4	2 months	450	3600
Drivers	2	3 months	350	2100
Sub-total				**81,300**
Materials				
Vehicle hiring	2	-	100/day	8000
Purchase of bicycles	20	-	300	6000
Data analysis computers	4	-	2000/laptop	8000
Printers & photocopiers	2	-		3000
Subtotal				**25,000**
Printing costs				
Questionnaires	5000	-		500
Training manuals	10	-		200
Reports	60	-		100
Subtotal				**800**
Consultancy cost				

Local consultants	2	Person-months	2300	4600
Contingency (5%)				4065
Total				**115,765.00**

From Table 4.61;

- The various base salaries enlisted above shows all the staff including all their travel allowance and other remuneration.
- The drivers will be recruited on an as-needed basis and paid on an in-and-out basis. We will hire a 15-seater urban bus, which will be driven by the drivers and used to take the workers in and out of the field.
- Throughout the four months of rigorous fieldwork, a 15-seater bus and bicycles will be used for vehicle hire.
- Rented vehicles will be refuelled, documented, and receipt numbers will be recorded.
- Contingency funds of 5% of total based salary will be set aside.

  That is; $\frac{5}{100} * \mathbf{81300} = \mathbf{4065}$

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