**AN EVALUATION OF FACTORS INFLUENCING COMMUNITY PARTICIPATION IN IMMUNIZATION: A CASE OF ORLU LOCAL GOVERNMENT AREA, IMO STATETABLE OF CONTENT**

Abstract

**Chapter One: Introduction**

1.1 Background of the Study- - - - - - - -

1.2 Statement of the Problem- - - - - - -

1.3 Aim & Objective of the Study- - - - - - -

1.4 Research Questions/Hypotheses- - - - - - -

1.5 Significance of the Study- - - - - - - -

1.6 Scope & Limitation of the Study- - - - - - -

1 Definition of Terms- - - - - - - -

**Chapter Two: Review of Literature**

2.1 Conceptual Framework- - - - - - - -

2.2 Theoretical Framework- - - - - - - -

2.3 Empirical Review- - - - - - - -

**Chapter Three: Research Methodology**

3.1 Research Design- - - - - - - - -

3.2 Population of the Study- - - - - - - -

3.3 Sample Size - - - - - - - - -

3.4 Sample Size Technique- - - - - - - -

3.5 Instrument and Administration- - - - - - -

3.6 Method of Data Collection- - - - - - -

3.7 Method of Data Analysis - - - - - - -

3.8 Validity of the Study- - - - - - - -

3.9 Reliability of the Study- - - - - - - -

3.10 Ethical Consideration- - - - - - - -

**Chapter Four: Data Presentation and Analysis**

4.1 Data Presentation- - - - - - - - -

4.2 Analysis of Data- - - - - - - - -

4.3 Answering Research Questions- - - - - - -

4.4 Test Of Hypotheses- - - - - - - -

4.5 Summary of Findings- - - - - - - -

**Chapter Five: Summary, Conclusion and Recommendation**

5.1 Discussion of Findings - - - - - - - -

5.2 Implication of Findings- - - - - - - -

5.3 Conclusion- - - - - - - - -

5.4 Recommendation- - - - - - - - -

5.5 Suggestion for further studies- - - - - - -

References

APPENDIX

QUESTIONNAIRE

**ABSTRACT**

The study is focused on an evaluation of factors influencing community participation in immunization using Orlu Local Government Area, Imo State as case study. The study utilized survey approach in which data was collected from both community members and health workers at Orlu Local Government Area, Imo State. The community members (279) were conveniently selected while the health workers (19) were purposive sampled for the study. Data was analyzed using frequency tables and mean scores and Hypothesis was tested using ANOVA statistical package for social science (SPSS v.23). The study concludes that factors influencing community participation may includes community based factors, healthcare workers factors and programme-based factors influence community participation in EPI programme in in Orlu Local government, Imo state includes the scope of the immunization programme, political factors and Interest of stakeholders, management of EPI instruments and resources, level of Training issued to healthcare workers and wage. The study recommends that The study recommends amon othre that health workers are encouraged to enhance their collaborative efforts between themselves and the community members in all stages of EPI programmes. More so, Orlu Local Government Area directorate needs to step up efforts to providing health education to the community members on the EPI programmes and the need to actively partake in the programmes.

**CHAPTER ONE**

**INTRODUCTION**

* 1. **Background of the Study**

The increasing effects of communicable diseases among young children of under five years of age has led to the aggressive process of prevention all over the world. Apart from personal hygiene and environmental sanitation that have been copiously employed to reduce the incidence and prevalence of many communicable diseases, immunization programme is the most common and active strategy to prevent many communicable diseases with the use of vaccines to build immunity among young children because of their vulnerability. Immunization has been said to be a proven tool for controlling and eradicating communicable diseases all over the word. It has been reported that a number of serious childhood diseases have thereby been successfully eradicated. All countries of the world have national immunization programme, and in most developing nations of the world, children under age five years are immunized with the standard World Health Organization recommended vaccines that protect against diseases like: tuberculosis, diphtheria, tetanus, poliomyelitis, measles, Pertusis, among others. WHO,(2020) & UNICEF, (2020) have reported that the vaccines have prevented more than 2.5 million deaths among children annually. Immunization is one of the key strategies to achieve the millennium development goals (MDGs) specifically to reduce child mortality. The proportion of children immunized against measles is one of the indicators of health MDGs target for decreasing the child mortality and morbidity from measles (UN, 2020). It is therefore pertinent and requires urgent attention to find ways of increasing vaccination coverage and particularly to encourage parents to have their children fully vaccination.

 Of all the child survival interventions, immunization generally has the greatest success thus far: 6 out of 10 children worldwide are now fully vaccinated by their first birthday. It is therefore imperative to focus attention on the behaviour of rural community dwellers whose children have not been fully immunized or not immunized at all to increase coverage. Community participation as a developmental strategy is an important cog in the wheel of ensuring that community programs are well-planned, implemented, monitored, evaluated, maintained, managed, and financed for the benefit of the current generation and future generations, using human, natural, and man-made resources (Putman, 2020). There is no single definition of community engagement; rather, there are a plethora of definitions that vary based on the degree of participation. In this continuum, "participation" spans from minor or "co-opted" participation, in which community members serve as token representatives with no say in decision-making, to "collective" action, in which local people start actions, set agendas, and strive toward a common objective. The term "community participation" is frequently used to refer to merely asking people about their health needs. Delegating the actual planning execution and pretesting programs are key components of planning, and opinions are frequently limited to prepackaged formulas (Brunner, 2019).

 Community participation has been used in the Expanded Programme on Immunization activities as a proven strategy for tackling healthcare challenges. The quality of participation, on the other hand, differs from program to program. Moreover, despite the failure of many health programs that were developed without the input of target communities or groups, some experts continue to dispute the relevance of community members' participation in the development, implementation, and evaluation of programs (Adinku, 2020). As a result, it is advocated that involvement be improved in two areas: setting realistic expectations between communities and health services in terms of their contributions to health and in health system governance. Dialogue between health-care providers and communities about their respective roles and the technical, resource, and social inputs required to fulfill them.

* 1. **Statement of the Problem**

Over the years, the primary healthcare in ORLU LOCAL GOVERNMENT AREA, IMO STAT have worked to engage communities in health-related activities.it became obvious that communities were not participating in EPI programs as intended. The majority of health-care providers expressed concern that communities do not use immunization services. Effective community participation in EPI programs would enable service providers to reach every eligible kid in the EPI program and fully immunize them against childhood immunizable illnesses (Ghana Health Service, 2018).

According to reports from service providers in the Elmina sub-District on community participation, (a) community members do not come for EPI services during outreach services, (b) pregnant women, mothers, and care givers do not come for routine immunization services as expected despite the fact that immunization is free, and (c) community members do not appear to be ready to mobilize and organize (Elmina Urban Health Centre, 2021; 2018).

Although severalstudies abound on social and cultural factors affecting immunization covereage, in recent time tim thr is death on literature regarding determinant s of community participation in immunization with reference to Orlu Loal Government. Upon this premise the researcher seeks to evaluate factors influencing community participation in immunization (a case of Orlu Local Government Area, Imo State.

* 1. **Aim & Objective of the Study**

The aim of the study is in an evaluation factors influencing community participation in immunization (a case of Orlu Local Government Area, Imo State. Specifically, th study objectives seeks:

1. To assess the extent of community member's involvement in EPI in Orlu. Local government, Imo state.

2. To find out community related factors influencing community participation in the EPI programme in Orlu. Local government, Imo state.

3. to examine health worker factors influence community participation in EPI programme in in Orlu. Local government, Imo state.

4. To determine programme-based factors influence community participation in EPI programme in in Orlu. Local government, Imo state.

**1.4 Research Questions/Hypotheses**

the research is guided by th following research questions constructed in line with the research objectives

1. What is the extent of community member's involvement in EPI in Orlu. Local government, Imo state?

2. What are the community related factors influencing community participation in the EPI programme in Orlu. Local government, Imo state?

3. What are the health worker factors influence community participation in EPI programme in in Orlu. Local government, Imo state?

4. What are the programme-based factors influence community participation in EPI programme in in Orlu. Local government, Imo state?

**Hypotheses**

1.Educational exposure of community members is not significant determinant of community participation in EPI programmes.

2.Health-worker factors is not significant in influencing community participation in EPI programmes than community based factors.

**1.5 Significance of the Study**

The EPI programme needs high community participation in order to achieve its expected goal. Therefore it is vital for health planners to measure changes in community self-efficacy or changes in local capacity to identify and solve problems facing the EPI programme. The findings may be useful to the local, state and federal health planners and policy makers in developing special intervention programme for the Local community dwellers to improve accessibility to health care services.

To community members, findings of the study will ehelp increase their awareness on the need for change of attitude to immunization programmes introduced tocommunities for the betterment of rural lives and alleviate mortality rate

Additionally, The result of the study may assist the vaccinators at the local government level to design a comprehensive forum through which the local dwellers can better be assessed.

Furthermore, The result of this study may also create awareness for all collaborators in the public health project to develop a more comprehensive programme with up-to-date facilities to cater for all citizens irrespective of their dwellings and location.

Empirically, this study will therefore add to the existing literature on factors that influence community participation in the EPI programmes, serve as as reference material for researchers and acadmia in the field of health . Lastly it may create an avenue through which further studies can be designed for the purpose of boosting immunization coverage in rural communities of Nigeria.

**1.6 Scope and Limitation of the Study**

The results of this study are from survey describing community participation and factors influencing it in Orlu Local Government. Therefore, community participation may not be explored into detailed. Caution should also be taken in making generalization based on the results and findings from this study since data were collected from few community health workers such as nurses and not medical officers. Furthermore, the purposive and convenient procedures used for selecting the study participants called for careful interpretation of the study. In addition, data were collected from more females than males, more low educated participants than higher educated ones. Thus, the results and the findings are likely to represent the views of females rather than that of the general population.

**1.8 Definition of Terms**

**Community:** This comprised a group of people with similar or near similar socio-cultural or ethnic identities, and values.

**Community participation:** Is the process by which individuals, families, or communities assume responsibility for their own welfare by contributing actively to planning, implementation of health intervention programmes in their communities (Burns, Heywood, Taylor, Wilde & Wilson, 2022).

**Community-based factors:** These include factors such as culture, religious beliefs, and attitude of community members that influence the planning and implementation of the routine immunization programmes.

**Health worker-based factors:** These are the attitude, collaboration or involvement of the community members by the health workers in the community health intervention programmes.

**Programme-based factors:** These factors include timing of the programmes, dosage of vaccines, the whole structure and implementation of the community health programmes.

**CHAPTER TWO**

**REVIEW OF RELATED LITERATURE**

**2.1 Preamble**

This chapter seeks to critically examine relevant literature, identify relevant theoretical ideas, concepts, debates and issues that would assist in explaining the research problem and furthermore recognize the efforts of scholars who had previously contributed immensely to similar research.

2.1 **CONCEPTUAL FRAME WORK**

**Concept of Immunization**

According to Oluwadare (2015), vaccination is the injection of a vaccine to assist the immune system in developing immunity to a disease. Vaccines are made up of a weakened, live, or deceased microbe or virus, as well as proteins or toxins from the organism. They help prevent illness from infectious diseases by increasing the body's adaptive immunity. Herd immunity occurs when a sufficiently big proportion of a population is immunized (UNICEF, 2016). Herd immunity protects people who may be immunocompromised and unable to get a vaccination since even a weakened form might be harmful to them. Vaccination has been extensively researched and proven to be beneficial. Vaccination is the most successful technique of avoiding infectious illnesses; broad immunity as a result of vaccination is partly responsible for the global eradication of smallpox as well as the eradication of diseases such as polio and tetanus from most of the world. However, some illnesses, like as measles outbreaks in the United States, have experienced an increase in cases as a result of relatively low vaccination rates in the 2020s, which can be linked in part to vaccine reluctance.

Currently, UNICEF (2019) emphasizes that vaccination is the most effective and cost-effective tool for preventive protection against infectious illnesses. The development of variolation in the 17th century, followed by systematic vaccination efforts, resulted in the elimination of smallpox globally by 1980. This was followed by immunizations, which resulted in a more than 90% reduction in polio outbreaks as well as a considerable decrease in pertussis, diphtheria, varicella, measles, and tetanus cases, saving millions of lives from avoidable illnesses like influenza. Araoye (2023) noted that vaccines have resulted in significant advances not just in underdeveloped and emerging countries, but also in wealthy countries such as Australia. The prevalence of common vaccine-preventable illnesses has decreased 200–2020-fold since the implementation of vaccination methods.

**The History of Immunization**

The use of these vaccine tactics was a direct outcome of the early success of variolation, also known as inoculation or smallpox topical application (Yola 2023). While inoculations and the administration of sections of lesions and scabs through the skin have been employed since the 17th century, with some accounts of protection reaching back to 430 BC, the notion of vaccination was first identified in the late 18th century (UNICEF 2016). This is when Edward Jenner discovered that milkmaids were immune to smallpox after being exposed to cowpox. Jenner theorized that exposure to cowpox may give protection against the closely similar virus that causes smallpox in humans. A conclusion was reached that some kind of cross-protection could be achieved and transferred across individuals. A kid acquired immune to infection after being inoculated with cowpox virus from a milkmaid's skin sores and then exposed to new smallpox. This provided Jenner with ample empirical proof of smallpox protection (UNICEF 2016).

The phrases vaccine and vaccination—derived from the Latin word vacca, which means "cow"—were subsequently adopted by Louis Pasteur in commemoration of Jenner's amazing findings. Vaccinations with a live/attenuated smallpox virus, along with a global smallpox eradication effort, resulted in the World Health Organization (WHO) declaring the eradication of smallpox in 1980. According to Standfield (2016), these accomplishments would not have been feasible without the substantial contributions of Louis Pasteur, who discovered in the late 1800s that living entities (e.g., bacteria and viruses) could cause sickness and pollution that were not of spontaneous origin. Heat might be used to inactivate these microbes, a method known as pasteurization nowadays. Later, the two scientists Paul Ehrlich and Ilya Metchnikoff were honored as "the founders of immunology" for their achievements and contributions to infectious biology and drug development, respectively (Standfield, 2016).

Ama, (2016) highlighted that it would not be until the mid-1900s that the immune system would be understood to a degree that would support the relevance of immunological memory, the foundation of vaccination. More crucially, the combination of chemical and biological breakthroughs to create less deadly types of viruses resulted in vaccinations that were more tolerable. Many novel vaccines were generated and licensed for use in people and animals in the late twentieth century as a result of developments like as genetic engineering and recombinant protein production. Vaccinations are now widely available in the industrialized world, resulting in fewer incidences of infectious illnesses than in the past. Vaccinations, according to Araoye (2023), have become important in saving lives in Nigeria and throughout the world, particularly in youngsters. Furthermore, immunization against infections such as human papillomavirus (HPV), which is proven to cause cervical cancer in women and other anogenital and oropharyngeal tumors malignancies in both sexes, is projected to lower cancer-causing infections by up to 90%.

To grasp the concept of vaccination, it is necessary to first understand how the immune system operates. Vaccines, which include a pathogen in a dead, weakened form or a sub unit, attempt to ready the immune system to respond to an infection by generating memory cells without producing illness symptoms. This allows for a speedier immune response upon re-exposure to the pathogen in the early stages of illness, perhaps leading to herd immunity. After receiving a vaccination, cells in the surrounding tissues are triggered to produce proteins (chemokines and cytokines) that recruit leukocytes to the site of damage, in most cases leading to antigen absorption and processing inside antigen-presenting cells (APCs). This local concentration of innate immune cells, together with their production of bioactive chemicals (chemokines and cytokines), contributes considerably to the inflammation commonly noticed at the injection site in the form of redness and swelling (Ama, 2016).

**2.1.1.4 Vaccination or Immunization Sites and Devices**

Abrutyn, (2023) remarked that while the initial vaccinations were carried out by skin scarification (ie disturbance of the skin’s epidermal layer), most current vaccines are given by means of hypodermic needle and syringe into muscle (i.m.), subcutaneous tissue (s.c.), or skin (i.d). (i.d.). Vaccines can also be administered via the mucosal route (ie, orally or nasally), however this delivery route requires particular formulations to prevent antigen degradation. This is especially the case for oral delivery due to the hostile environment that the vaccine must endure within the gastrointestinal tract while permitting proper absorption and avoiding poor bio availability (Abrutyn,2023). With so many different vaccinations being accessible, several delivery methods are necessary based on a vaccine’s composition, cellular absorption, or vascularity of the tissue. Thus each vaccination route has its own advantages and downsides.

1. **Intramuscular Immunizations**

According to Bhargavan & Ravi (2016), the most popular method for vaccine delivery is i.m. or s.c. administration due to its speed and simplicity. The needle and syringe design, initially created in 1853 by Pravaz and Wood, revolutionized vaccination and medicine administration, and while it has since been modified, it has not altered considerably since its inception. Large dosages can be administered at a 90-degree angle into the deltoid or anterolateral thigh muscle, where there is a good blood supply. Bhargavan and Ravi (2016) went on to say that adjuvant coadministration is best done in the morning since it results in less adverse effects than other times of the day. To far, the majority of vaccines have been administered intramuscularly. To mention a few, influenza, DT, hepatitis A and B, HiB, HPV, pneumococcal, and meningococcal vaccinations.

However, Bhargavan & Ravi (2016) cautioned that there are a number of drawbacks to using hypodermic needles and syringes. When compared to skin-based immunizations, i.m. or s.c. administrations have been reported to be more painful, less effective in generating immunological responses, and/or require larger doses of vaccine immunogen. 34–37 Because i.m. and s.c. injections largely circumvent the body's immune system and deliver the vaccine and other antigens into tissue with very few resident APC populations, many administrations may be required. This could explain why vaccinations into APC-rich tissues, such as mucosal and cutaneous locations, require less antigen than i.m. immunizations to elicit equivalent protection. While these tissues have gained acceptance in research settings and clinical trials, challenges with formulation and appropriate delivery remain.

1. **Subcutaneous Immunizations**

As earlier stated, i.m. and s.c. offer similar administrative advantages and disadvantages. Unlike i.m. injections, s.c. injections are given at a 45-degree angle into adipose tissue, such as the buttocks. Overall, due to limited drainage and vasculature, s.c. injections can result in prolonged antigen retention (Bhargavan, & Ravi, 2016). While longer antigen presence can result in higher immunogenicity due to prolonged uptake, it can also result in an increase in the number of occurrences of unfavorable local reactions, such as granulomas or abscesses, especially when adjuvants are used. Overall, s.c. administers fewer immunizations than i.m. Examples include, among others, IPV, Q-fever, varicella, and several MMR/MMRV vaccines. 33 Some vaccinations, such as MMR, pneumococcal, rabies, and yellow fever, can be given either subcutaneously or intramuscularly, depending on unique manufacturer guidelines.

1. **Cutaneous Immunizations**

According to Adudu, Ogunrin & Adudu (2017), there are various distinct techniques for cutaneous vaccine administration that take advantage of local sampling and antigen uptake by APCs that are abundant in both the epidermis and dermis. To defend against smallpox, the initial type of immunization was scarification of the skin surface, followed by topical injection of the cross-reacting cowpox or vaccinia virus. Bifurcated needles are now dipped in vaccine and repeatedly used to prick the skin, albeit with the abolition of smallpox, this delivery route is rarely employed. Several decades later, in the early twentieth century, Mantoux reported cutaneous immunization involving the injection of liquid with a needle into the skin, resulting in the creation of a bleb. Intradermal (i.d.) injections are one conceivable alternative to traditional immunization routes because they take advantage of the skin's unique immune system, delivering the antigen in close proximity to APCs such as dDCs and the network of draining lymphatic vessels required to carry antigen to the dLN to elicit an immune response. While i.d. immunizations have exhibited comparable or enhanced immunogenicity with a 5–10-fold dose sparing against influenza, rabies, or HBV vaccines when compared to traditional i.m. methods, they can be challenging to accomplish due to the dermal layer's thin layer. In Europe, only BCG immunizations are now administered i.d., and only one influenza vaccine (Intanza) is licensed for i.d. delivery (Adudu, Ogunrin & Adudu 2017).

Most techniques of cutaneous immunization entail disruption of the skin’s barriers to a certain degree, helping the entry of antigen as well as adjuvants into the skin. Challenges include disturbing the stratum corneum and possibly the underlying viable epidermis (VE) to allow molecules, but not infections, to pass through without causing significant skin damage. With molecules needing to be ≤500 Daltons (Da) for\spassive diffusion, antigens and viruses are substantially bigger (in the range of several kDa or >1 nm53), thus requiring help for improved penetration/diffusion of themolecules. According to Hinfey, (2017), this has resulted to many passive ways for vaccine/molecule distribution via the skin by means of modified vehicles (ie, particles incorporated in appliedcream), chemical/physical disruption, or passive diffusion such as nicotine patches. Larger molecules still require mechanical assistance to permit passage of the SC into the VE and underlying dermis (Adudu, Ogunrin & Adudu 2017).

Barrier disruption can be said to be a physical injury that generates local damage or tissue trauma to which the immune system responds with the release of danger signals from injured cells, such as heat shock proteins, monosodium uric acid, dsDNA, etc. These danger signals can lead to DC activation and result in proinflammatory cytokine release, affording an explanation for the seen dose-sparing impact when compared with i.m. or s.c. administration routes. Examples of cutaneous immunization procedures include biolistic injections, electroporation, iontophoresis, ultrasound and tattooing devices, most of which are currently in development. While biolistic injections have been employed in large immunization efforts, this strategy was abandoned due to a hepatitis outbreak connected with blood cross-contamination. Other cutaneous vaccine delivery systems are still in their early stages of development (Hinfey, 2017).

1. **Mucosal Immunizations**

According to Hinfey (2017), immunotherapy of mucosal tissues has the benefit of taking the vaccine at or near the primary site or channel of infection for some pathogens, resulting in more natural cellular and humoral responses such as IgA production. A fundamental advantage of the mucosal route, particularly the oral route, is that it is considerably easier to administer than any parenterally administered vaccine and hence has a lower risk of transmitting any blood-borne infections. However, significant obstacles to mucosal immunization remain to be solved. To be effective, the antigen must be able to tolerate enzymatic digestion and low pH in the gastrointestinal tract (when taken orally) as well as penetrate epithelial barriers. This is possible by modifying the vaccine formulation. Furthermore, antigen exposure, particularly repeated exposure, may result in tolerance rather than protection (Hinfey, 2017). Due to substantial adverse occurrences, two recently licensed vaccinations have been withdrawn off the market. Postintranasal delivery of an adjuvanted inactivated influenza virosome vaccine resulted in facial nerve paralysis, whereas oral administration of a rotavirus vaccine resulted in unacceptably high levels of intussusception in several newborns.

**The Rationale behind Immunization**

The World Health Organization (WHO) (WHO, 2023), reported that vaccine or immunization information systems in underdeveloped countries have not advanced significantly since the inception of the WHO Expanded Programme on Immunization (EPI) in the late 1970s. Typically, health professionals at the service delivery level utilize paper-based systems to register the moms who have been vaccinated and the vaccines and other resources used throughout the procedure (Onwasigwe 2023). Vaccination is one of the world's most significant and cost-effective strategies that promotes health, social, and economic advantages. It has eliminated smallpox, cut the worldwide incidence of polio so far by 99 percent and produced remarkable reductions in disease, disability and mortality from whooping cough, measles, diphtheria and tetanus. In 2019 alone, it is estimated that vaccination prevented or avoided more than 2 million fatalities (Jong-wook & Veneman, 2015). The fact is that the vaccination target 2016-2015 has not been fully achieved as intended. For fair access to vaccination as indicated, there is need for innovation via the use of information and communication technology (ICT) in data capture and management for immunization productivity.

Vaccination can avert an estimated 2-3 million child deaths and 600,000 adult deaths worldwide each year. Vaccination has been demonstrated to boost physical development in children, increase educational performance, reduce poverty and household expenditure, and improve equality (Humphrey, 2021). Furthermore, the return on investment (ROI) of money invested in immunization programs is significant, as recent research has shown that for every USD $1 put in immunization results in at least USD $16 in net benefits; when the economic benefits of living longer, healthier lives are factored in, this figure rises to $44 of net benefit (Humphrey, 2018). Despite these achievements, significant gaps remain in the capacity to fully realize the potential benefit of vaccination data in informing program management. According to Hassel (2016), health care systems, particularly immunization systems, have increased chances to learn from other sectors in order to enhance the efficiency of data-driven vaccination systems such as the banking system.

Africa, and particularly Nigeria, lags far behind in terms of vaccination data management, utilization, and process efficiency. According to the United Nations Children's Fund (UNICEF), they will continue to give catalytic support to scale-up important technologies. There are several examples of inventions and technology that may be used in immunization programs. Included are advancements in supply chain technology, electronic vaccination registries, recall and monitoring of persons who have missed immunizations, data visualization and analysis, motivating health workers, and community participation.

The effectiveness of the vaccination process is a significant hurdle. According to Ladiwig (2017), in Kenya, mobile cellphone technology may be used to develop platforms for real-time evidence-based innovations in vaccination service communication and service delivery. They observed that while mass media techniques to vaccination communication are effective, house-to-house canvassing by trustworthy, unbiased, and community-based resource individuals had a higher reach. Because they can create information/data in the field and transfer it to a central data base, it will improve efficiency and provide individuals with equitable access to vaccination, especially in remote locations. According to their findings, residential and private visits were better recalled as information sources (70 percent) than standard public awareness channels such as megaphones (41 percent) and radio (37 percent ). Scholars have emphasized and highlighted anomalies in data reporting as well as insufficient support measures at the local level to assure data quality (UNICEF, 2016).

Smallpox, one of the most contagious and lethal illnesses in humans, was eradicated due to the introduction of vaccines. Other illnesses, such as rubella, polio, measles, mumps, chickenpox, and typhoid, are no longer as prevalent as they were a century ago, thanks to broad immunization campaigns. It is considerably more difficult for a disease outbreak to start, let alone spread, as long as the vast majority of individuals are vaccinated. This is known as herd immunity. Polio, which is only transmitted between humans, is being targeted by an aggressive eradication campaign, which has resulted in endemic polio being limited to only sections of three nations (Afghanistan, Nigeria, and Pakistan). However, because to the difficulty of reaching all youngsters, as well as cultural misconceptions, the expected eradication date has been missed multiple times (Adudu, Ogunrin & Adudu 2017).

Oluwadare (2015) underlined that immunizations also assist reduce the development of antibiotic resistance. For example, by considerably reducing the incidence of pneumonia caused by Streptococcus pneumonia, immunization programs have greatly lowered the prevalence of diseases resistant to penicillin or other first-line medications.

# Participation as a Means for EPI

The UN Economic Commission for Africa (1991) and UN Economic and Social Council (2020) define participation as a “voluntary contribution by the people in one or another of the public health programmes supposed to contribute to national development, but the people are not expected to take part in shaping of the programme or criticizing its content” (p. 24). In this definition, participation is seen as an input (voluntary contribution) or as a means necessary for the achievement of pre-determined objectives. According to Oakley and Marsden (1984), participation here is examined from the point of view of government intervention in public health programme and in this respect; terms such as mobilization and coercion are used to characterize the nature of the participation.

In practice, participation is seen here as a voluntary contribution by beneficiaries, very often during the implementation stage or as mere end-users, but not in the decision-making process. This conception of participation is the most dominant in rural communities. Where participation is interpreted as a means it is essentially describing a state or an input into a community programmes (Oakley, 2018).

This form of participation undermines the goals of sustainability and self-reliance and produces outputs that do not persist once the programme ceases. Participation as a means stresses the results of participation in that the achievement of pre-determined targets is more important than the act of participation (Oakley, 2018).

# Community Participation as an End

From a review of participation in a number of World Bank programmes, Sherradin (2021) attempted an all-embracing definition of (community) participation as an active process by which beneficiaries or client groups influence the direction and execution of public programmes with the view of enhancing their well-being in terms of income, personal growth, self- reliance or other values they cherish. In this definition, it seems all the possible expectations of beneficiaries could derive from their participation, both the tangibles and intangibles. Participation is viewed here as both a means and an end in itself. Sherradin (2021) also recognizes self-reliance as part of the concept of participation.

Although Oakley and Marsden (2018) agree that the unity of participation as both a means and end is implicit in a number of national projects. They admit that contradictions still exist. This is because both positions reflect different ideological perspectives. Where “participation” is the means to achieving previously established objectives, its strategy is to reform and improve areas whereas where “participation” aims at achieving power in order to demand meaningful participation. It implicitly demands some kind of structural change. In such circumstances, it seems improbable that the divergence can be reconciled.

However, whatever the interpretation given to participation, at the heart of the concept is the need for the exchange of information between the target group and an external agent within a group of people in order to contribute to the resolution of problem or improve the quality of life of people.

Loewenson and Chisvo (1994) on the other hand see participation as “people’s involvement in decision-making processes, in implementing programmes, their sharing in the benefits of development programmes and their involvement in efforts to evaluate such programmes”. This definition, which recognizes participation as a process, identifies decision-making, implementation, sharing benefits and evaluation as key elements in the process. As a process, it unfolds over time and strengthens the capabilities of beneficiaries to intervene more directly in community health initiatives. This form of participation is described to be active and dynamic which enables people to play an increasing role in community activities (Oakley & Marsden, 2018). Where participation is interpreted as an end in itself, it refers to a process, the outcome of which is meaningful participation (Oakley, 2018).

According to Pearse and Stiefel (2019), participation concerns the organized efforts to increase control over resources and regulative institutions in given social situations on the parts of groups and movements of those hitherto excluded from such control. This statement launches empowerment as another dimension of the concept of participation. Frankel and Dogget (2022), stated power is the central theme of participation and participatory social action entails widely shared, collective power by those who are considered beneficiaries. Through participation, people become agents of social action and power differentials between those who control and those who need resources. The underlying view is that participation must be a process, which is carried out from within, with the fundamental pre-requisite of a distribution of power, which allows individuals to influence all decision affecting their lives (Berkker, 20166).

According to Oakley (2018), this understanding of participation contains three main elements:

 (1) The sharing of power and scarce resources;

(2) Deliberate efforts by social groups to control their own destinies and improve their living condition, and

(3) Opening up opportunities from below. In practice, an empowering strategy is one which does not only allows for the resolution of an immediate problem, but also gives the ‘partner’ the confidence, skills and access to information to transform them from passive recipients into ‘ agents of change’ in their own local environment (UN Economic and Social Council, 2020). From literature, it is discernible that participation as an end is the inexorable consequence of the process of empowering.

Community participation is deemed very important to achieving the goals of community health programmes. A large number of potential benefits are attributed to participatory processes, including better addressing community needs through more locally adapted organizational processes and improvement in health outcomes (Zakus, 1998). For example, on studying community empowerment and participation on the basis of gender, Itzhaky and York (2020) studied a group of community activists in a low-income neighborhood in central Israel. They found different relationships between types of participation and empowerment by gender. In addition, their results indicated that gender did not have a significant main effect on empowerment, and its effects only became evident when it interacted with participation. Thus, probably community participation in programmes has is largely gender dependent.

Empowerment through participation takes place at different levels. According to Maton (2018), empowerment is a group-based participatory developmental process through which marginalized or oppressed individuals and groups gain greater control over their lives and environment. In addition, these groups acquire valued resources, basic rights, and achieve important life goals that reduce societal marginalization. Ideally, empowerment is both a process and an outcome of community engagement. Empowerment takes place at the individual, the organization or group, and the community levels (Hur, 2016). Empowerment at one level can influence empowerment at the other levels. Furthermore, empowerment is multidimensional, taking place in sociological, psychological, economic, political and other dimensions (Hur, 2016; Maton, 2018; Rich, Edelstein). Community-level empowerment challenges professional relationships to communities, emphasizing partnership and collaboration rather than a top- down approach (Wallerstein, 2018).

# Factors Affecting People’s Participation

` There are many factors that affect people’s participation in programmes and projects. In the context of rural programmes, Richardson and Waddington (2016) identify three categories of obstacles to people’s participation, namely, obstacles within the (programme) agency; obstacles within the community; and obstacles within the society. Richardson Waddington report identifies the following seven barriers to people participation: (1) Easy availability of grants and subsidies; (2) Prejudices and discrimination against women; (3) Illiteracy and lack of awareness; (4) Factionalism and heterogeneity of population; (5) Disparities in wealth and social status; (6) Interference by politicians, and (7) Misunderstanding about the motivation and objectives of people’s organizations.

Mishra, Shama and Sharma (2018) on the other hand, classify the factors affecting people’s participation into six categories, namely, physical and biological, political, social, cultural and historical. Oakley and Marsden (2019) are of the view that the identification of obstacles to people’s participation is directly related to one’s perspective on participation. In this respect the “means” or “end” dichotomy is illustrative. To view participation as a means suggests a set of obstacles usually associated with the operational procedures of the task undertaken. On the other hand, to view participation as an end suggests obstacles that are more associated with structural and institutional relationships both at the national and local level.

The review here is centered on those factors as identified by Singh (2018) as this is detailed and captures the various perspectives of participation. The factors affecting people participation identified by Singh is grouped into the following four categories; (1) User community-specific; (2) Agency- specific; (3) Programme-specific and (4) Environment-specific factors

# Community-Based Factors

There are many community variables which are deemed to have great influence on the community participation in community health interventions including EPI programmes. Some of these factors include formal education of the programme implementers and community members, perception, attitude and religion of the people to who such programmes are delivered. Others may include community resources and community members’ readiness to realize these materials for the project implementation.

# Formal Education

One of the factors influencing community participation is formal education of the community members on EPI programme. The educational level of a person can have influence on how the individual does behave, reacts, adapts to a situation in certain conditions (WHO, 2020). With regards to the EPI programme, there are some basic information that community members should know or be aware of on the programme. These include diseases under EPI, the causes of those diseases, mode of spread, signs and symptoms and the prevention of the diseases under the Expanded Programme on Immunization. Also, the time and period that children and Women in Fertilized Age (WIFA) should be immunized against the diseases. Formal education and the knowledge of community members therefore plays important role in the acceptance of preventing childhood immunizable diseases through immunization (NPI, 2017).

The National Monitoring and Supervision Team on current NIDs revealed unawareness by women to take sick children for immunization, inadequate participation of men in immunization in spite of them being dominant decision makers, fear by women who did not attend Antenatal Care (ANC) clinic of being reprimanded by health care providers, and perception that children get sick when immunized, cultural and religious barriers, are identified as information gaps in the EPI programme. Many people may be unaware of the vaccine recommendations for the age groups, and its importance or may not have access to vaccine information (Richardson & Waddington, 2016).

# Perception

Perception according to Classical Theory of perceptions advance by German psychologist and physicist, Herman Ludwig Ferdinard von Hemholt in the mid-19th century, is the individual’s ability to continually synthesize past experience and current sensory cubes. Perception is a process by which sensory stimulation is organized into usable experience. All perception involves signals in the [nervous system,](http://en.wikipedia.org/wiki/Nervous_system) which in turn result from physical stimulation of the sense organs (Woodford & Jackson, 2019). For example, vision involves [light](http://en.wikipedia.org/wiki/Photon) striking the [retinas](http://en.wikipedia.org/wiki/Retina) of the eyes, smell is mediated by odor [molecules](http://en.wikipedia.org/wiki/Molecules) and hearing involves [pressure waves](http://en.wikipedia.org/wiki/Sound_wave). Perception is not the passive receipt of these signals, but can be shaped by [learning](http://en.wikipedia.org/wiki/Perceptual_learning), [memory](http://en.wikipedia.org/wiki/Memory) an expectation. Perception is viewed as individual’s ability to continually synthesize past experience and current sensory cues. The National Immunization Programme (2017) in Nigeria on NIDs revealed that most common childhood diseases are attributed to factors such as bad food, bad water, weather conditions and poor environmental sanitation.

Even though, communities are aware of childhood illness and their preventive measures, they don’t know the actual causative organism, mode of spread, incubation period, and period of communicability. Again, community members perceive that the frequency rounds of NIDs, non-payment of charges on immunization, and numerous doses a child acquires can make a child more overdosed with vaccines thereby reducing the immunity previously acquired which can expose the child to more severe childhood diseases that are not with the EPI targeted programme (NPI, 2017). Again, community members believed that administering more than four doses of polio vaccine (at routine and outreach service) is harmful to a child, more additional vaccines (NIDs) to children, can have other effects on the child. The personal and philosophical beliefs of the parents are the most influential in the immunization decision.

 The complexity of the immunization schedule has posed challenges for both families and providers, resulting in missed opportunities in children by the age of 2 years (WHO/UNICEF & USAID, 2018). Even though immunization programmes have had a dramatic impact on reducing the number of severity of communicable diseases outbreak, they also believe that, vaccine preventable diseases persist and in some cases have increased in prevalence because of lowered immunity in the general population. Childhood immunizations do much to provide lifetime immunity to certain diseases in the EPI programme

**Attitude**

Another community based factor that influence community participation towards immunization programme is attitude. Attitude is defined as the way you think and feel about something. Attitude can also be defined as a feeling or opinion about something or someone or a way of behaving that is caused by a person (Woodford & Jackson, 2019). NPI (2017) revealed that some beliefs influence community member’s attitude. Community members believe that subsequent immunization administration have adverse effect on the child. Also, some community members attributed childhood illness to evil spirits a female spirit or a god in one’s family and therefore cannot be prevented through any immunization (NPI, 2017). This study revealed that some beliefs influence community members’ attitude.

EPI Review (2022b) study also revealed that unawareness of the need to send a child for immunization, different doses of incomplete immunization scheduled by mothers and caregivers, mother’s age and place of residence, caregivers and mothers households’ economic level, and mothers educational level, influence the attitude of community members on EPI activities. According to EPI Review (2022a) in Ghana, changing of immunization regime that a child can be immunized through routine services with card, mass campaigns, and house to house visits without cards was assumed to influence parent’s health seeking behaviour.

Accessibility to vaccine services is another factor influencing community participation in EPI programmes. For instance, the distance and time taken to reach the nearest services outlet are impeding participation and child immunization as many of the service centers are far to reach in the rural area in the developing nations (EPI Review, 2022b). Quality of services , vac- cine quality (implies valid and effective vaccines), staff qualification (implies technically qualified and expert staff), staff behaviour during vaccination and convenient place of waiting before having the vaccine can be valued as good service indicator to measure attitude toward utilization of immunization services on community participation in the EPI programme (WHO, 2020).

Again, community members believed that administering more than four doses of polio vaccine (at routine and outreach service) is harmful to a child. Or more additional vaccines (NIDs) to children can have other effects on the children. Again, the personal and philosophical beliefs of the parents are the most influential in the immunization decision. The complexity of the immunization schedule has posed challenges for both families and providers, resulting in missed opportunities in children by immunization at [clinical](http://www.child-encyclopedia.com/pages/PDF/RodewaldANGxp.pdf) [preventive service](http://www.child-encyclopedia.com/pages/PDF/RodewaldANGxp.pdf) (NPI, 2017). Even though immunization programmes have had a dramatic impact on reducing the number of severity of communicable diseases outbreak, they also believe that, vaccine preventable diseases persist and in some cases have increased in prevalence because of lowered immunity in the general population. Childhood immunizations do much to provide lifetime immunity to certain diseases in the EPI programme. Again, community members believed that administering more than four doses of polio vaccine (at routine and outreach service) is harmful to a child, more additional vaccines (NIDs) to children, can have other effects on the child. Again, the personal and philosophical beliefs of the parents are the most influential in the immunization decision. The complexity of the immunization schedule has posed challenges for both families and providers, resulting in missed opportunities in children by the age of 2 years (NPI, 2017).

Even though immunization programmes have had a dramatic impact on reducing the number of severity of communicable diseases outbreak, they also believe that, vaccine preventable diseases persist and in some cases have increased in prevalence because of lowered immunity in the general population. Childhood immunizations do much to provide lifetime immunity to certain diseases in the EPI programme.

# Religion

Religion is one of the factors that can influence community members on community participation. The word religion is derived from the Latin noun religion, which denotes both earnest observance of ritual obligations and an inward spirit of an individual. Religion is a sacred engagement which is believed to be a spiritual in reality. Religion is a worldwide phenomenon that has played part in all human culture and so is a much broader, more complex category than the set of traditional beliefs or practices. An adequate understanding of religion must take into account its distinctive qualities and patterns as a form of human experience as well as the similarities and differences in religion across human cultures (Broughton, Beigi, Switzer, Raker & Anderson, 2019).

Religion is the term the most commonly used to designate the complex and diverse realm of human experiences (Paden, 2019). In Massachusetts there were different views and opinions from religious leaders on immunization. These views and opinion started from the time of variolation (the deliberate inoculation of a person with small pox material in other to prevent the spread of the diseases). A minority religious view strongly put the others should to eschew immunization and accept the small pox as God sent (White, 2016).

The following user-community-specific factors were identified and their effects on people participation discussed by Singh (2018). He concedes that in many situations, local people do not participate simply because they are not aware about the seriousness of the problem and the need for intervention, and about the programme(s) of intervention, about their role in the programme, and about benefits from their participation in the programme. Dispersal of people over wide geographic areas, lack of transport and communication facilities, low literacy rate, lack of relevant literature/material in vernacular and lack of interest and enthusiasm on the part of the agency staff are among the obstacle to making people aware and thereby enlist their participation.

**Values and Beliefs:** Every community has a set of values and beliefs that are rooted in its culture, tradition and history. These values and beliefs govern the attitude and behavior of members of that community including the manner in which they relate to one another within the community and to outsiders, and their attitude towards nature, resources or resources products. Some values and beliefs promote reciprocity, cooperation and resource conservation whereas others engender competition, conflict and resource depletion. It is important to note that obstacles to people’s participation arising from their values and beliefs cannot be removed in the short term and hence development programme interventions should be designed accordingly. However, over the long term, most values and beliefs can be and have been changed as a combined result of education, demonstration, technological changes, economics forces and government policies.

**Socio-Economic Structure:** Homogeneity and heterogeneity of a community in terms of caste, class, ethnicity, assets, income, are important determinants of people’s participation (Bekker, 2016). For communities so heterogeneous, their needs, aspirations and motivations are very different and often results in conflicts when attempts are made to facilitate their collective participation. Bekker is of the view that most of the obstacles of people’s participation arising from the heterogeneous socio-economic structure of a community can be removed by an external entity that is a political, neutral and acceptable to the community by and large. In most cases, dividing the large heterogeneous community into small relatively homogeneous groups and then organizing them resolve such problems.

**Organization and Leadership:** Singh is of the view that formal or informal organization of the people concerned is a pre-requisite for people’s participation. He further agreed that availability of good local leadership is essential for organizing people, mobilizing their resources, nurturing and sustaining the organization, insulating the organization from external threats, liaising with NGOs and government institution receiving the uncertainty from people’s access to promised benefits the enforcing the organization’s rules, regulations and sanctions against their violation.

Other researchers have recognized the importance of local leadership in promoting people’s participation in community-based projects. Veneracion (1994) in a study in Sierra Leone attributed the successful completion of community-based project in some regions to the influence of local leadership. He concluded that for effective community participation to occur depends on the extents to which influential local leaders are prepared to use their influence to; (1) Broaden the decision-making process; (2) Mobilize local human and financial resources for development efforts; (3) Acquire outside resources to complement local resources and (4) Willingly use these to bring broad-based benefits to the community.

**Economics Status:** Both the level of per capital income as well as its distribution among the people affects people’s participation. Lower level income generated people and other voluntary people in the community cannot afford to spend their time, energy and money if at all they have any to spare, on participation in community-based programmes and are not rewarded or paid, especially if the benefits from such participation are low and uncertain. Similarly, if there is a high degree of inequality in the distribution of income in a community, participation of the destitute and very poor along with the very rich and wealthy people would be difficult to enlist since real participation can occur only among the equals (UN Economic and Social Council, 2020).

**Prejudices against Women:** Women are known to be very closely associated with many activities relating to appropriation of natural resource and/or their products. For example mostly involve women are mostly involve in community organized programmes than men, and responsible for household activities such as collection of fuel wood and fetching water for household use. But most community-based programmes for the provision, usage and

management of these natural resources do not provide for enlisting women’s participation. Besides, in many cultures, women are discouraged from participating in meetings and training programmes along with men. The exclusion of women tends to affect their participation in such programmes, which very often adversely affects the success of the programmes.

# Health-Worker Based Factors

Immunization is a routine exercise (Freed, Cowan & Clark, 2018; Tarrant & Gregory, 2019; Hanslik et al., 2020) and health workers may be more concern about the herd immunity rather than many of the processes that may demand assistants from the community members (Daley et al., 2016; Fredrickson et al., 2022). Health workers are more likely to be concerned with protecting, as many as possible, children from childhood killer diseases through routine immunization (Omer, Salmon, Orenstein, de Hart & Halsey, 2019). Health workers will get busy with immunization, especially children, because of their high knowledge of the effects of these killer diseases and the imports of vaccination to the children (Dinelli et al., 2019; Gust, Kennedy, Shui, Smith, Nowak & Pickering, 2023; Willis & Wortley, 2017).

Childhood immunization is essentially to protect and prevent children from childhood immunizable diseases (Tadesse, Deribew & Woldie, 2019). Immunization offers the greatest benefits for health, well-being and survival of children than many other interventions (UNICEF, 2023). Accordingly, from 1960–2018, a fifty percent reduction in under-five mortality was observed.

Immunization programmes has saved the lives of nearly 4 million children (Kidane & Tekie, 2019). Study showed that the cost to treat a vaccine preventable disease is 30 times more than the cost of the vaccine. Further investigations of outbreaks of vaccine preventable diseases indicated that incomplete immunization was the major reason for the outbreaks. Moreover, a low immunization rate was the major reasons for many of the outbreaks of infectious diseases in the past two decades (Gore, Madhavan & Curry, 2019).

Involving community members in decision making towards planning for, implementation and evaluation of health programmes go a long way to promote active participation of community members in such programmes (Baatiema, Skovda, Rifkin & Campbell, 2023; Preston, Waugh, Larkins & Taylor, 2020). A review by Fielder (2019) demonstrated where health professionals collaborated effectively with community members, community participation enhanced the uptake and response to health interventions, promoted scalability and sustainability of child health promotion intervention in rural Mexico (Baatiema et al., 2023; Rifkin, Hewitt & Draper, 2017). Thus, community members are likely to commit their community resources including money, materials and time that can contribute to improved health via such programme being implemented (Rifkin et al., 2017; Taylor, Wilkinson & Cheers, 2018). Community health workers are sometimes promoted as a mechanism to increase community involvement in health promotion efforts, despite little consensus about the role and its effectiveness. The effectiveness of these workers indicates that they assist in increasing access to care, particularly in underserved populations. The author also observed that health workers increased health knowledge, improved health status outcomes, and behavioral changes (Swider, 2018).

A mid-term evaluation conducted by BASICS staff compared some AIN-C communities with control communities. These evaluations revealed that enrollment of children under two years was 92% for AIN-C communities as against 21% control communities. Iron supplement coverage for children over four months also rose to 47% in AIN-C children while only 9% increment was found among the control communities. In addition, the review indicated that immunization coverage was increased to 76% among AIN-C children and were fully immunized compared to 66% of the controls. Also, AIN-C exclusive breastfeeding (EBF) rates increased from 27% to 49% for children under 4 months and from 21% to 39% for children under 6 months of age, while control rates decreased from 20% to 17% for children under 4 months and from 15% to 13% for children under 6 months. The authors observed that mothers in the AIN-C communities were fully involved in the planning and many other decision making processes of the project (Griffiths & McGuire, 2023; Taylor et al., 2018; Serpa & de Suarez, 2019; Villalobos, McGuire & Rosenmoller, 2020).

Motivation or incentives are critical in whipping up individual, group of individuals or a whole community towards participation of a community project (Noguchi, Albarracín, Durantini & Glasman, 2017; Shinitzky & Kub, 2019). A research conducted in the Northern Region of Ghana by Baatiema, et al. (2023) revealed the imminence of motivation, through indirect involvement of the community members, in increasing community members’ active participation in Community-based Health Planning and Services (CHPS) programme. Baatiema et al. found that taken active steps to involve community members in each stage of addressing health problems at the community-level motivated these members that increased their participation and eventual establishment of the CHPS programmes and its utilization (Kilpatrick, Cheers, Gilles & Taylor, 2019). However, Shinitzky and Kub (2019) lamented that public health professionals such as nurses face challenges to motivate and facilitate health behavior change when working with individuals, families and communities in designing and implementing programmes. Despite these challenges as speculated by Shinitzky and Kub, and Noguchi et al. in their meta-analysis to measure motivations underlying enrollment and retention in HIV-prevention interventions observed that samples who were motivated with some incentives to use condoms were more likely to complete an intervention than were those who received nothing motivational. Motivation from programme designers and/or implementers, such as health professionals, is also more effective when community members are carry along to participating in such community health intervention programmes (Shinitzky & Kub, 2019; Noguchi et al., 2017).

Collaboration is a key for the success implementation and achievement of goal(s) of any community health project (Haines et al., 2017; Singh, 2018). Community members participate in community health programmes such as child immunization programme, at various areas and stages. A proper collaborative participation between community members and health workers provides a beneficial outcome for project targeted participants (children), health workers and the community at large (Viswanathan et al., 2022). Such partnerships in health programmes do not only provide health improvement to the targeted audiences (Viswanathan et al., 2022), it promotes community empowerment by building the capacity of the community members as they take part in decision making concerning the programmes (Minkler et al., 2019). For instance, a comprehensive systematic review conducted by Viswanathan et al. (2019) provided evidence that effective partnership between community health worker and community members result in greater improvements in participant behavior, health outcomes and increased appropriate health care utilization. These authors concluded that community health workers can serve as a means of improving health outcomes for underserved populations, for some health conditions. But such health improvement is likely to be achieved through effective collaborative efforts between the two agencies.

In addition, Norris et al. (2019) observed from some rural community projects that there was maximum satisfaction, positive lifestyle changes and increased in knowledge acquired among the community members that were attributed to effective project implementation and contributed to the general outcome of the project target goals. These they attributed to the effective partnership between community health workers and the community members, which was a coordinated effort of the health workers.

Community health workers undertake various tasks, including case management of childhood illnesses such as pneumonia, malaria, and neonatal sepsis and delivery of preventive interventions like immunization, promotion of healthy behaviour, and mobilizing the communities (Viswanathan et al., 2019). However, for the success of these activities community health workers cannot be stand-a-lone implementers; the active involvement of the communities is much required (Haines et al., 2017). Minkler et al. (2019) noted that such collaborative participation should be community based rather than simply community placed. They believed that this will bring community members and other stakeholders such as nurses, doctors and community pharmacists to collaborate in addressing, effectively, health and other social problems to the benefit of the community members.

# Programme Design-Specific Factors

Programme design factors that influence people’s participation include:

**Programme Objectives:** Singh argues that people or community participation should be one of the objectives of programmes such as the public health and also one of the criteria for evaluating and achieving the performance of such programmes at community level. Unless this done, programme personnel would not seriously try to enlist community’s participation.

**Programme Instruments:** Instruments used in participatory programmes and projects to enlist people’s participation are numerous. The major instruments often used include education, training, provision of technical information, subsides, voluntary agreement and contracts, wage-for workers in programmes of common interest, organization of resources users and framing of rules and regulations for coordinating and controlling the resource use among others. Each of these instruments influences people’s participation depending how it is used (Rifkin, 2019).

**Programme Benefits and their Distribution:** If people’s participation is to be self-sustaining, then the expected benefits from participation in the programme should be substantially higher than the expected costs of participation. In addition, equitable sharing of both benefits and cost in participatory or common interest programmes is an important prerequisite for enlisting and sustaining people’s participation.

# Environment-Specific Factors

The major environment specific factors that influence people’s participation are policy-related, political and legal factors:

**Policy-related Factors:** Using Indian Government policies on health issues like the National Policy on Health and the National Health Policy as examples. Singh (2018) asserted that whereas all the policy documents emphasize the need for people’s participation, it is not clear as to who would try and involve the people, why and how. He argues that unless answers to such questions are clearly specified, all statements about people’s participation would remain a mere rhetoric.

**Political Factors:** Participation is basically a process of redistribution of power and hence it is political in nature and is bound to lead to conflicts of interests of the people involved. The prevailing view about political participation is that it is positively correlated with the level of development, that is, the higher the level of development, the higher the degree of participation (Mishra et al., 1984). Political interference coupled with bureaucratic indiscretion is also known to act as a barrier to participatory management (Veneracion, 2022). Makcumbe (1996) suggests that to deal with political factors, it is important that both the programme agency and its programmes are not politicized. He concedes, however, that in some cases gaining the protection of the political party in power may help in enlisting people’s participation, but noted that such programmes run the risk of being stultified after the political party that sponsored or supported it is no longer in power.

**Legal Factors:** As stated earlier, equitable sharing of cost and benefit in common interest programmes is a prerequisite to enlisting and sustaining people’s participation. Singh (2018), however, is of the view that these need to be guided by laws or government resolutions about their access to benefits from participative management and enforcement of the laws is effective, they would not participate.

**Scope of EPI**

The WHO initiated the Expanded Programme on Immunization in May 1974 through the World Health Assembly resolution (WHA 27.57) to build on the success of the global small pox eradication and to ensure that all children in all countries benefited from life – saving vaccines. Ten years later in 1984, the WHO established a standardized zeal for vaccination schedule for the original

EPI vaccines: BCG, DPT, OPV and MV. Increased knowledge of immuniologic factors of diseases led to new vaccines. The launching of the Expanded Program on Immunization in 1974, vaccination programs have been one of the world’s most cost-effective public health strategies. These programs reduce the burden of infectious diseases globally and serve as a key building block for health systems in the developing world. Initially, immunization programs included vaccines against six diseases: polio, measles, neonatal tetanus, diphtheria, pertussis, and tuberculosis. Recently, many countries have introduced other vaccines (hepatitis B, yellow fever, Haemophilus influenza type B) based on several considerations such as the prevalence of specific diseases, the availability of new vaccines, and additional financial resources. Immunization was a story of both successes and failures. With the push to universal immunization in the 1980s, the world accelerated immunization coverage in an unprecedented fashion, reaching reportedly over 70 percent of children globally with the basic six vaccines by the end of 1990. Yet coverage has stagnated since then, leading to 2 million unnecessary deaths annually from vaccine preventable diseases (WHO/UNICEF, 1985). Global and regional averages also must lower local coverage, particularly in sub-Saharan Africa, where some 17 countries have immunization coverage levels under 50%. In fact, 30 million infants worldwide are still not immunized with even basic vaccines. In many countries, immunization services disproportionately miss the poorest and most excluded populations. Even when services are available, a substantial number of caregivers still fail to complete the immunization schedule. The stagnation in vaccination coverage is not without cause. Problems range from infrastructural problems of health delivery systems to funding pressures that divert resources away from routine immunization programs are also affected by the interplay of local and national politics. Challenges have ranged from isolated episodes of non-acceptance (due to religious, ethical, medical attitude and perception considerations) to active political mobilization against immunization programs driven by political and conspiratorial arguments. This is of particular concern considering recent growing evidence of declining confidence in governments in developed and developing.

In 1999, the Global Alliance for vaccine and immunization (GAVI) was created with the sole purpose of improving child health in the poorest countries by extending the reach of the EPI. Today, nearly 85% of the world’s children under one year of age have received these lifesaving vaccinations. Increasing numbers of countries, including low income countries are adding new and under used vaccines like Hepatitis B, Haemophilus influenza type B (HIB) and yellow fever vaccine to their routine infant immunization schedules.

However, one fifth of the world’s children about 19.3 million infants are not immunized against these killer diseases. Nearly 70% of these children live in about ten countries. An estimated 1.7 million children died in 2018 from vaccine preventable diseases. However, the deadlines for eliminating maternal and neonatal tetanus and certification of global polio eradication by 2020 have not been met (WHO, 2020).

Sustainability is the key for the next phase of the drive towards full immunization. UNICEF is a leading partner in the Global Alliance for vaccines and immunization (GAVI), a far reaching public – private partnership dedicated to increasing children’s access to vaccine in poor countries. The Alliance works to strengthen and expand routine immunizations services and support the introduction of new and under-used vaccines. The ultimate objective of the EPI is to establish immunization programme that would run frequently throughout the year, and also year after year. Moreover, in spite of the failure of many health programmes designed without participation of target communities or groups some professionals also continue to question the value of community member’s participation in programmes designed, implementation and evaluation (WHO, 2020 ).

# EPI Programme Acceleration

The year 1977 was the onset of the implementation of the EPI programme. In 1982, the EPI programme progress towards the goal of Universal Child Immunization was noted to be slow by1990. Using the first Diphtheria, Pertussis and Tetanol Toxoid DPT vaccine as an indicator of access to immunization and 3rd DPT as an indicator of completion of immunization, only 31% of the children had across to immunization and 20% completed their immunization. To improve this dark picture the EPI Programme Acceleration was recommended using a five point approach:

* The promotion of EPI within the context of Primary Health Care (PHC)
* The investment of adequate human resources in EPI. These personnel should be sufficient in numbers, and conversant with appropriate managerial skills, as poor programme management appeared to be a severe constraint in health workers charged with looking after these programmes.
* The investment of adequate financial resources in EPI, two thirds of which, is possible should be generated within the implementing countries.
* Efforts to be made to ensure that community members are given immunization as that programmed under the EPI and continuously monitored, periodically evaluated and appropriately adapted.
* The pursuit of research efforts, especially operational research, the result of which would assist in better programme management should be an in-built component of any EPI programme (WHO/UNICEF, 1985).

**2.2 THEORETICAL FRAMEWORK**

A theoretical framework includes concepts and, accompanied by their definitions and reference to pertinent scholarly literature, existing theories used for a particular study. This demonstrates an understanding of theories and concepts that are relevant to the topic of a research paper and that relate to the broader areas of knowledge being considered (Labaree, 2019). Research conducted around the use of technology in banking has employed the application of several research models and theories to explain factors that lead to adoption of intervention.

Notably, here is no universally valid theory of people’s participation in programmes. What is presented here is a set of propositions stating the conditions under which people do or do not participate in collective action, such as participation in community health intervention programmes. Since all development programmes entails some collective action on the part of their target individual or group of individuals, and the professionals designing, implementing and possibly, evaluating programmes, one could argue that the factors affecting collective action might also influence people’s participation. In other words, determinants of people’s participation in community programmes constitute a big set of which determinants of collective action are a subset. The salient points of the theoretical approaches to collective action developed by Olson (1991), Buchanan and Tullock (1985; 1995) and others are presented below.

Olson (1991) has challenged a generally held view that groups of individuals having common interest usually work together to achieve them. He argues that “unless the number of individuals in a group is quite small or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interest” (p. 45).

**Olson (1991)**

Olson (1991) contends that generally, the larger the group, the less noticeable the action of its individual members. This according to Olson explains why large groups frequently fail to provide collective action for their members. Using two simple tools of economic analysis, Olson has shown that certain small groups can provide themselves with collective action without relying on coercion or any positive inducements apart from the collective action itself. This is because in some small groups, each of the members, or at least some of them, will find that their personal gain from having the individual action far exceeds the total the collective action (Olson).

Olson (1991) does not specify the number of individuals that would make the small group, but he asserts that the group should be such that “the individual actions of any one or more members are noticeable to any other individuals in the group” (p. 34). An important implication of Olson’s theory for managing collective goods is that if a group using the collective good is very large and heterogeneous, it should be divided into a number of small and homogenous subgroups and each subgroup randomly assigned a portion of the collective action that should be as far as possible, proportionate to the size of the group.

Olson (1991) also discusses the possible role of promoting collective action. The promoter of collective action is an individual with a combination of such traits as leadership, the trust of the community or its fear, the ability to discern the motives of others, and the desire to organize the group for collective action. He suggests that the success of the promoter will be related to his ability to utilize selective incentives to motivate participation in collective action.

# Buchanan and Tullock’s Theory

Buchanan and Tullock’s (1985) propounded a theory of collective choice similar to Olson’s theory. In their words, their theory can perhaps be best classified as being methodically individualistic. They asserted that, in view of the fact that separate individual participate in collective action with often conflicting interests and purposes, any theory of collective choice must attempt to explain or describe the means through which the conflicting interest of individuals are reconciled.

Accordingly, a group would choose a collective mode of action when each of its individual members finds it profitable to act collectively rather than individually, that is, when perceived costs are less than perceived benefits from the collective action. Buchanan and Tullock (1985) adopted what they call a benefit approach in their analysis of collective choices and actions. The authors argue that, it is the existence of external benefits that rationally explains the origin of either voluntarily organized, co-operative, contractual arrangements or collective activity. They used two cost functions; an external cost function and a decision-making cost function to determine the “optimum” or most “efficient” decision making rule for an individual. The external costs are envisioned to be a decreasing function and the decision-making costs as an increasing function both of the number of individuals required to reach an agreement. This means that the external costs are envisioned to decrease and the decision-making costs to increase as the number of members in a group increases. Minimizing the sum of expected external costs and expected cost of decision-making derives the optimum decision rule for an individual.

Buchanan and Tullock’s (1995) approach is seen as an improvement over Olson’s theory in that it explicitly relates the costs to the number of individuals in a group. Their theory makes it clear that what is important in determining the optimal rule or choice is the cost (external and decision- making) and not the size of the group. Thus Buchanan and Tullock’s theory could explain successes in common pool resource management where large groups are involved. Besides, their theory is also helpful in identifying external costs that can be reduced through appropriate interventions or measures. However, according to Sherradin (1991), the cost functions employed by Buchanan and Tullock are simplistic to approximate the real world cost functions, where besides the number of persons in a group, there are many other variables such as the dispersal of the members in the group, stake of the group in the resource, that determine the external cost and the decision-making costs. But the framework provided by authors is generally broad and general enough to accommodate these details.

**2.3 EMPIRICAL REVIEW**

In a 2023 study by Ezenduka, on ‘survey of the individual and community factors affecting the uptake of immunization in four northern and two southern states of Nigeria’, a total of 7200 respondents, mostly women with under-5 children, were interviewed. One finding from the survey is that there is a strong correlation between mothers’ knowledge (measured in terms of certification) and the prevalence of full immunization. The paper also explored the mediating role of mother's decision-making power in this relationship. It was deduced that the stronger the mothers decision-making power, the higher the likelihood of full immunisation. The woman's decision-making power was measured through a set of questions that assessed the woman's contribution to specific household decisions.

A study by Babalola & Adewuyi (2015) on community and systemic factors affecting the uptake of immunization in Nigeria” showed that poverty and cultural belief is likely to distract mothers from placing high premium on disease prevention as is the case in immunisation. This was due to the pressure on the family scarce resources hence giving the women no chance to think about essentials like immunisation. The study clearly showed that the lower the socio-economic class, the less likelihood for full immunisation. Furthermore, the study showed that communication around child immunization significantly is a function of education, socio-economic status and exposure to immunization-related information on the media or through community sources. Specifically, communication increases steadily with the woman’s education such that the women least likely to report discussion with their spouse are the illiterates. Exposure to immunization related information is associated with increased spousal communication, indicating that the information obtained served as a point for discussion about immunization among spouses.

In a study of the “effects of geographical differentials in the utilisation of immunisation services’, Jegede et al (2023) x- rayed the accessibility of information on immunisation to Nigeria women. A random sample of 1,554 women of reproductive age who have given birth to, at least one child in the last five years in the south-east Zone of Nigeria were recruited for the study. Their responses indicated limited access to information in the rural areas than the urban areas. For those who have received information in the urban areas, their major sources of information are electronic media (television and radio), whereas the main sources of information in the rural areas were health workers, traditional rulers, friends and neighbours. These sources differed by place of residence, age, level of education and occupation of mothers. Data showed that respondents from urban areas utilise immunisation better than those in the rural areas. Thus, it is concluded that access to health information may be influenced by geographical location and social class, therefore, health education promotion and programming must take into consideration such factors.

**2.4 Summary of Literature**

Community participation transcends every field of human endeavour, from community health promotion, education, agriculture, marketing to economic and political science. Community participation has been promoted and deemed to be a critical element in enhancing population health. The health status of the populace can mostly be advanced with community health intervention programmes, which community member participation plays major role. Community participation does not only bring about effective social cohesion between outsiders and community members, it promotes the act of pooling community resources and expertise to achieve programme goal(s). Community participation also promotes sense of ownership among community members as they contribute to the design, implementation and evaluation processes of the community programme. Programme sustainability and empowerment of community people are also key attributes of community participation.

However, community participation is not with major challenges. Some research specialists observed that, many at times, community members do not have time to commit to participation in community projects. In addition, community members may lack expert knowledge to contribute effectively to the processes of the programme. This can cause problem between outsiders and community members which can delay the project and compromise achievement of project goals.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1 RESEARCH DESIGN**

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, (2019), Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

**3.2 STUDY AREA**

Orlu is the second largest city in Southeast Nigeria’s Imo State located located within latitude 5 42ʹ N and 5 52ʹ N, and longitude 6 56ʹ E and 7 07ʹ E). It has a long history and It is a home for enterprise and industry which gave it the unofficial tag of the commercial capital of Imo state. Many successful Nigerian businessmen, industrialists and champions of industries hail from its Local Government Areas that make up what is widely called Orlu Senatorial Zone. They include Orsu, Isu, Njaba, Nwangele, Nkwerre, Ideato North, Ideato South, Oru East, Oru West, Ohaji Egbema and Oguta. The City centre of the local government area are within the host towns of Amaifeke, Ihioma/Ebenese, Umuna, Umuowa, Orlu-Gedegwum and Owerre-Ebeiri. When all of the LGAs in the zone are included Orlu’s population is estimated to be approaching 3,000,000 inhabitants. The Local Government consists of over 33 Autonomous communities. They include towns like Umuna, Eziachi, Obor, Umuzike, Umutanze, Obinugwu, Umudioka among others.

**STUDY POPULATION**

 The aim of the study is in an evaluation factors influencing community participation in immunization (a case of Orlu Local Government Area, Imo State. The estimated population of Orlu Local Government Area 420,600 according to Internationa Cities of Peac (2022).

**3.4 SAMPLE SIZE**

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). The sample size selected for the study was 294 comprising 279 community members and 15 health staff. The sample of the community members represented about 1% of the accessible population. The sample size of 279 was considered appropriate. According to Fraenkel and Wallen (2020) for descriptive studies a sample with a minimum number of 100 participants is essential if any meaningful inferences are to be drawn from the sample to generalization to the accessible population.

**3.5 SAMPLE SIZE SELECTION TECHNIQUE AND PROCEDURE**

According to Nwana (2023), sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the convenience sampling technique in selecting the respondents from the total population.

In this study, the researcher adopted the quota sampling technique to select the community members. A proportionate calculation of 1% was administered on the individual enrolments of the 23 communities (279) was used for the study.

 Specifically,

|  |  |
| --- | --- |
| Alaoma Oweere-Ebeiri 18[Amaifeke](https://en.wikipedia.org/wiki/Amaifeke%22%20%5Co%20%22Amaifeke) 12 [Amike](https://en.wikipedia.org/wiki/Amike%22%20%5Co%20%22Amike) 11Eziachi 17[Ihioma](https://en.wikipedia.org/wiki/Ihioma%22%20%5Co%20%22Ihioma) 19Ihitte-Owerre 12Mgbee 12Obibi-Ochasi 10Obinugwu 13Obor 10Umutanze 10Umuzike 20 | Ogberuru 9Okporo 14Oweer-Ebeiri 13Umuago 23Umudioka 16Umudioka Ancient Kingdom 16Umudioka UKWU 15Umudioka-Oweere 7Umueze17Umuna 8Umuowa 5 |

The samples were selected conveniently from each of the study communities. In addition, the researcher purposively selected all the 19 health workers in the Local government headquaters for the study.

**3.6 INSTRUMENT FOR DATA COLLECTION**

Two sets of researcher-developed questionnaires were used for collection of data from respondents; one for community members and the other for health workers. The composition and construction of the questionnaires were guided by various variables (community participation, community based factors, programme based factors and health worker based factors on EPI) and available empirical literature.

**3.7 METHOD OF DATA COLLECTION**

Two methods of data collection which are primary source and secondary source were used to collect data. The primary sources was the use of questionnaires, while the secondary sources include textbooks, internet, journals, published and unpublished articles and government publications.

VALIDITY & **RELIABILITY OF THE STUDY**

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instruments relevance of the contents and statements and then made the instrument valid for the study.

The reliability of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87.

**3.8 METHOD OF DATA ANALYSIS**

The questionnaires were statistically analysed using statistical software SPSS version 16. The data files were crosschecked for completeness of the content and for internal consistency in responses. From the results of the factor analysis, the four research questions and two hypotheses which guided this study were statistically analysed individually. Differences in community members participation in EPI based on their educational levels (research question 2) was also tested using one-way analysis of variance (ANOVA). Hypothesis one was also tested with this same analysis. ANOVA test was utilized for the analysis because a quantitative data (interval) was collected (Babbie, 2017; Ofori & Dampson, 2021). AMultiple regression was the best analytical tool suited for predicting community participation with health worker and community base factors when dependent variable (community participation) is a quantitative date (interval scale) (Huck, 2018; Ofori & Dampson, 2021) as in this study. Besides, the independent variables (health worker and community base factors) could be any form of data, either quantitative and/or qualitative, which the current data is in interval scales.

**3.11 ETHICAL CONSIDERATION**

The study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

**4.2.1 Demographic Data of Community Members**

**Table 4.1:**

|  |  |  |
| --- | --- | --- |
| **Option** | **Frequency** | **Percentage** |
| **Gender**  |  |  |
| Male | 53 | 19% |
| Female | 226 | 81% |
| Level of Educational  |  |  |
| Basic | 113 | 40% |
| Secondary  | 81 | 29% |
| Tertiary | 85 | 31% |
| **Marital Status** |   |  |
| **Single**  | 80 | 29% |
| **Married**  | 164 | 59% |
| **Divorced**  | 28 | 10% |
| **Widowed**  | 7 | 3% |

**Source: field survey, 2024.**

Two hundred and seven nine community members’ questionnaires were included in the data analysis. There were 19% (*n*=53) males and 81% (*n*=226) females. 40% (*n*=113), 29% (*n*=81), 31% (*n*=85), of the community members had basic education, secondary education and tertiary education, respectively. About 29% (*n*=80) of the community members are single, 59% (*n*=164) married, 10% (*n*=28) divorced and 3% (*n*=7) widowed. Twenty eight percent (*n*=78) of the participants have no under-five child, 45% (*n*=125) have one each of such children, 25% (*n*=70) have two each and 25 (*n*=6) have three each.

**Dmographic Data of Healthcare Workers**

**Table 4.2:**

|  |  |  |
| --- | --- | --- |
| **Option** | **Frequency** | **Percentage** |
| **Gender**  |  |  |
| Male | 5 | 33 |
| Female | 10 | 81 |
| Level of Educational  |  |  |
| Diploma  | 6 | 40 |
| Degree  | 6 | 40 |
| Advanced Cert. | 3 | 20 |
| **Department**  |   |  |
| **Nurses** | 6 | 40 |
| **Midwivery** | 3 | 20 |
| **CHEW**  | 6 | 40 |

**Source: field survey, 2024.**

 The health workers comprised 33% (*n*=5) males and 67% (*n*=10) female. These health workers comprised 40% (*n*=6) Diploma, 40% (*n*=6) Degree, 20% (*n*=3) Adv.aced certificate. In addition, 40% (*n*=6) work as nurses, 20% (*n*=3) as PHC midwives and 40% (*n*=6) work as community health nurses and 7%.

**4.2 RESEARCH QUESTIONS**

1. What is the extent of community member's involvement in EPI in Orlu. Local government, Imo state?

# Table 3: Frequency and Percentage Analysis of Community Participation in EPI Programmes

|  |
| --- |
| **Item Low (%) Medium (%) High (%)** |
| Helping to mobilize communitymembers for immunization 263 (97.9) 3 (1.1) 3 (1.1)Helping to set up sites forimmunization 262 (93.9) 7 (2.5) 10 (3.6)Assisting health personnel duringimmunization sessions 258 (92.5) 13 (4.7) 8 (2.9)Assisting nursing mothers duringimmunization sessions 260 (93.2) 11 (3.9) 8. (2.9)Providing place for keepingimmunization equipment 259 (92.8) 12 (4.3) 8 (2.9)Assisting health workers to reachchildren due for immunization 154 (91.0) 15 (5.4) 10 (3.6) |

Community participation in EPI was analysed using frequency and percentage counts. The researcher categorized and scored participants’ participation in EPI programmes as low, medium and high, with six separate items measured community participation in EPI. Thus, frequencies of scores between 0-2 indicate low, 3 medium and 4-5 high participation in EPI programmes.

Analysis shows that out of 279 community members, over 91% (n =154 to 263) scored low on each of the items comprising community participation in EPI programmes. For instance, 98% (*n* = 263) and 93% (*n* = 258) community members scored low on items “helping to mobilize community members for immunization” and “assist health personnel during immunization sessions” respectively. Moreover, about 2.0% (*n* = 6) and 8% (*n* = 21) of the participants scored medium or above on the same items. Additionally, whereas 91.0% scored low in assisting health workers to reach children due for immunization, only 9.0% scored medium or above. Hence, community members’ participation in EPI programmes is low in in Orlu Local government, Imo state

**Question 2:** **What are the community related factors influencing community participation in the EPI programme in Orlu. Local government, Imo state?**

**Table 4.4**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Option** | **N** | **M** | **SD** | **Decision**  |
| Negative perception about child immunization | 85 | 4.87\* | 6.27 | Accepted  |
| Religious inclination that childhood illness is caused by evil spirit hence cleasing | 60 | 3.23 | 4.71 | Accepted  |
| Community members believe that subsequent immunization administration have adverse effect on the child  | 71 | 4.03 | 5.07 | Accepted  |
| Level of education and exposure to modern healthcare | 63 | 3.41 | 4.6 | Accepted |

From the responses derived as described in the table 4.5 above on the community factors influencing community participation in the EPI programme in Orlu. Local government, Imo state, the table shows that all the items(item1-item4): stating; Negative perception about child immunization, Religious inclination that childhood illness is caused by evil spirit hence cleansing, Community members believe that subsequent immunization administration have adverse effect on the child and Level of education and exposure to modern healthcare; all with mean score of 4.87, 3.23, 4.03 and 3.41 were accepted.

Question 3: **What are the health worker factors influence community participation in EPI programme in in Orlu. Local government, Imo state?**

**Table 4.5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Option** | **N** | **M** | **SD** | **Decision**  |
| Knowledge on Immunization administration | 80 | 4.67\* | 6.07 | Accepted  |
| Inability to motivate and facilitate health behavior change when working in community | 65 | 3.81 | 4.71 | Accepted  |
| Asking for incentives from community members before issuing vaccine | 71 | 4.03 | 5.07 | Accepted  |
| Level of professionalism in discharging duties | 63 | 3.41 | 4.5 | Accepted |

From the responses derived as described in the table 4.5 above on the health worker factors influencing community participation in the EPI programme in Orlu. Local government, Imo state, the table shows that all the items(item1-item4): stating; Knowledge on immuniation administation, Inability to motivate and facilitate health behavior change when working in community, Asking for incentives fom community members before issuing vaccine, Unethical behaviour or attitude towards ill child or parent; all with mean score of 4.86, 3.81, 4.03 and 3.41 were accepted.

**Question 4: What are the programme-based factors influence community participation in EPI programme in in Orlu. Local government, Imo state?**

**Table 4.5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Option** | **N** | **M** | **SD** | **Decision**  |
| The scope of the immunization programme | 83 | 4.71\* | 6.17 | Accepted  |
| Political factors and Interest of stakeholders | 65 | 3.81 | 4.71 | Accepted  |
| Management of EPI instruments and resources | 70 | 4.01 | 5.05 | Accepted  |
| Level of Training issued to healthcare workers and wage | 63 | 3.41 | 4.5 | Accepted |

From the responses derived as described in the table 4.5 above on the programme basedfactors influencing community participation in the EPI programme in Orlu. Local government, Imo state, the table shows that all the items(item1-item4): stating; The scope of the immunization programme, political factors and Interest of stakeholders, management of EPI instruments and resources, level of Training issued to healthcare workers and wage; all with mean score of 4.71, 3.81, 4.03 and 3.41 were accepted.

**4.3 TESING GYPOTHESIS**

HO1: Educational exposure of community members is not significant determinant of community participation in EPI programmes.

**Hypothesis One**

**Table 4.8:**  **Educational exposure of community members is not significant determinant of community participation in EPI programmes.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model 1 | R = 0.830 | R2 = 0.936 | Adj.R2 = 0.687 | Std. Error estimation= 0.307 | Durbin- Watson =1.679 |
| Regression Residual Total | Sum ofSquare | Df | Mean Square | F | Sig. |
| 6089.2462744.9478834.193 | 17577 | 6089.24618.547 | 328.315 | .000b |
| Constant **Educational exposure** | UnstandardizedCoefficients | StandardizedCoefficients | t | Sig. |
| B | Std. Error | Beta |
| -11.417.887 | 2.936.016 | .830 | -3.88818.119 | .000.000 |

**Source: Author’s Data Analysis, 2024**

The table above shows that educational exposure of community members is a significant determinant of community participation at (β = 0.887, R2 = 0.936, P = .000). Furthermore, result reveals that level of education has 68.9% decisive influence on community participation in EPI. The P value of 0.000 is less than significant level of 0.05. Therefore H01 is rejected.

HO2: Health-worker factors is not significant in influencing community participation in EPI programmes.

**Table 4.9:** Health-worker factors is not significant in influencing community participation in EPI programmes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model 1 | R = 0.831 | R2 = 0.952 | Adj.R2 = 0.688 | Std. Error estimation= 0.308 | Durbin- Watson =1.688 |
| Regression Residual Total | Sum ofSquare | Df | Mean Square | F | Sig. |
| 6089.2472744.9488834.194 | 17577 | 6089.24718.547 | 328.316 | .000b |
| ConstantHealthcareworkers | UnstandardizedCoefficients | StandardizedCoefficients | t | Sig. |
| B | Std. Error | Beta |
| -11.418.896 | 2.943.017 | .830 | -3.99918.120 | .000.000 |

**Source: Author’s Data Analysis, 2024**

The table above shows that health-worker factors is not significant in influencing community participation in EPI programmes at (β = 0.896, R2 = 0.952, P = .000). Furthermore, result reveals that healthcare factors has 68.8% decisive influence on community participation in EPI Orlu Local Government. The P value of 0.000 is less than significant level of 0.05. The result shows that health-worker factors is not significant in influencing community participation. Therefore H01 is rejected.

**4.3 SUMMARY OF FINDINGS**

 The finding revealed that community members’ participation in EPI programmes was low in Orlu Local Government. In Imo State. Perhaps majority of the community members have low formal education with some having quite a negative perception about EPI programmes. Education is a very strong indicator of how individuals seek, accept and utilize information. Therefore, education or knowledge people have on a particular programme affects how these individuals accept and utilize such programme and its services (WHO, 2020).

In addition the finding revealed that community participation in EPI programmes is dependent largely on community based factors such as negative perception, religious inclination, customs and belief and educational exposure. For instance, it is clear that community members with lower educational status actively partake in EPI programmes than those with higher educational status. Probably, participation in community immunization programmes demands more time commitment, and attitude rather than knowledge of and availability personal resources (Maekawa et al., 2017).

Further more, the study reveals healthcare factors and programme based factors affection community participation such as healthcare worker’s knowledge, management of EPI instrument, level of professionalism, The scope of the immunization programme and politcal factors and Intrest of stakeholders. From Indian rural community, a study by Paashar (2023) demonstrated that a positive and significant relationship exists between healthcare worker and programm based factors in a district and a child's complete immunization status within that district.

**CHAPTER FIVE**

**CONCLUSION AND RECOMMENDATION**

**5.1 DISCUSSION OF FINDINGS**

The major findings of the study are discussed thus below:

* Community members’ participation in EPI programmes is low in in Orlu Local government, Imo state. **T**his in line with the findings of Ezenduka (2020), who assert that in most rural community participation could be low due to perception mothers’ knowledge (measured in terms of certification) and the prevalence of full immunization.
* Community factors influencing community participation in the EPI programme in Orlu Local government, Imo state, includes mother’s negative perception about child immunization, Religious inclination that childhood illness is caused by evil spirit hence cleansing, community members believe that subsequent immunization administration have adverse effect on the child and Level of education and exposure to modern healthcare. This is corroboration with the findings of Babalola & Adewuyi (2015) community factors influencing community participation in the EPI programme in Orlu Local government, Imo state, the table shows that all the items(item1-item4): stating; Negative perception about child immunization, Religious inclination that childhood illness is caused by evil spirit hence cleansing, Community members believe that subsequent immunization administration have adverse effect on the child and Level of education and exposure to modern healthcare.
* Healthcare worker factors influencing community participation in the EPI programme in Orlu Local government, Imo state are knowledge on immunization administration, Inability to motivate and facilitate health behavior change when working in community, Asking for incentives from community members before issuing vaccine, Unethical behaviour or attitude towards ill child or parent. This is in agreement with the findings of Singh, (2022) who opined that effective collaboration between implementers (health workers) and the receivers of community health projects (community members) is very critical to achieving project goals either to enhance health status of the community members in this case children.
* Programme-based factors influence community participation in EPI programme in in Orlu Local government, Imo state includes the scope of the immunization programme, political factors and Interest of stakeholders, management of EPI instruments and resources, level of Training issued to healthcare workers and wage. This is in consonance with the findings of Viswanathan et al., 2021 who averred that scope, management and partnerships in health programmes do not only provide health improvement to the targeted communities but also it empowers by building the capacity of the community members as they take part in deciding making concerning the programmes (Minkler et al., 2019).

**5.2 IMPLICATION OF THE STUDY**

Immunization in the rural communities requires aggressive motivation through comprehensive health education. This should be geared towards the identification of positive and negative factors that should be reinforced and jettisoned respectively for the purpose of achieving optimal immunization goals in the rural communities.

 The outcome of the study evidence that effective collaboration between community health worker and addressing community factors through campaings and education result in greater improvements in participant behavior among member communities ,improve health outcomes and increased appropriate health care utilization. Therefore community health workers can serve as a means of improving health outcomes for communities during EPI and as well be professional while discharging their duties to enable effect immunization programme.

 Programme planners are encourage to manage programme instrument effectively, harnessing both the human and physical resources available for rural community projects and increased in knowledge among the community members, that contributed to effective project implementation and general outcome of the project target goals.

**5.3 CONCLUSION**

Immunization is one of the key strategies to achieve the millennium development goals (MDGs) specifically to reduce child mortality. Howbeit It requires urgent attention to find ways of increasing vaccination coverage and particularly to encourage parents to have their children fully vaccinated through community participation. Although community participation is core to the success of many community health intervention programmes, there are many factors that influences member communities participation in the EPI.

The study is focused on an evaluation of factors influencing community participation in immunization using Orlu Local Government Area, Imo State as case study. The study utilized survey approach in which data was collected from both community members and health workers at Orlu Local Government Area, Imo State. The community members (279) were conveniently selected while the health workers (19) were purposive sampled for the study. Data was analyzed using frequency tables and mean scores and Hypothesis was tested using ANOVA statistical package for social science (SPSS v.23).

The study concludes that factors influencing community participation may includes: community based factors (mother’s negative perception about child immunization, religious inclination that childhood illness is caused by evil spirit hence cleansing, community members believe that subsequent immunization administration have adverse effect on the child and level of education and exposure to modern healthcare), healthcare workers (knowledge on immunization administration, inability to motivate and facilitate health behavior change when working in community, asking for incentives from community members before issuing vaccine, unethical behaviour or attitude towards ill child or parent), programme-based factors influence community participation in EPI programme in in Orlu Local government, Imo state includes the scope of the immunization programme, political factors and Interest of stakeholders, management of EPI instruments and resources, level of Training issued to healthcare workers and wage.

**5.4 RECOMMENDATION**

Based on the conclusion of the study the following recommendations were drawn;

* The health workers are encouraged to enhance their collaborative efforts between themselves and the community members in all stages of EPI programmes.
* Orlu Local Government Area directorate needs to step up efforts to providing health education to the community members on the EPI programmes and the need to actively partake in the programmes.
* Ministry of Health should be hold more immunization sessions for mothers which have less than five years children as well as social group meetings to exchange information at maternal and child health centers.
* Ministry of Health should provide mothers with vaccination booklets explain the importance of vaccination, importance of vaccination card, routine doses and how to manage the side effects.
* Target should be the entire population, and educational programmes promoting immunization and parental motivation, accessibility, and follow-up should be instituted.

# 5.5 Suggestion for Further Studies

* There is a need to extend this research and expand the scope of measurement community participation in EPI programmes in other Local Government Area in Imo State.
* A research is needed to explore the factors responsible for low educated community members participating in EPI programmes better than higher educated members.
* There is a need to develop a standardized instrument to measure community participation, specifically in community health intervention programmes.

# REFERENCES

Adinku, E. K. N. (2020). *Community participation approaches to rural development in Ghana - A study of Fanteakwa District in the Eastern Region*. Retrieved 05/08/13 from [http://hdl.Handle.net](http://hdl.Handle.net/)

Ahmed, S. M., Beck, B., Maurana, C. A., & Newton, G. (2020). Overcoming barriers to effective community-based participatory research in US Medical Schools. *Education for Health, 17*(2), 141–151.

Baatiema, L., Skovda, M., Rifkin, S., & Campbell, C. (2023). Assessing participation in a community-based health planning and services programme in Ghana (Electronic version). *BMC Health Services Research, 13,* 233. From <http://www.biomedcentral.com/1472>

Baum, F. E., Bush, R. A., Modra, C. C., Murray, C. J., Cox, E. M., Alexander, K. M., & Potter, R. C. (2020). Epidemiology of participation: An Australian community study. *Journal of Epidemiology and Community Health, 54,* 414-423.

Bekker, K. (2016). *Citizen participation in local government*, JL van Schaik. (Eds). South Africa: Oxford University Press.

Bhuyan, K. K. (204). Health promotion through self-care and community participation: Elements of a proposed programme in the developing countries. *BMC Public Health*, *4:* 11 doi:10.1186/1471-2458-4-11

Bovin, J. (1995). *Introducing remarks: Participatory development from advocacy in action.* Paris: Schneider and Libercier, OECD.

Broughton, D. E., Beigi, R. H., Switzer, G. E., Raker, C. A., & Anderson, B. L. (2019). Obstetric health care workers’ attitudes and beliefs regarding influenza vaccination in pregnancy. *Obstetrics Gynecology, 114,* 981- 987.

Brunner, W. (2021). Community-based public health: A model for local issues. *Community-Based Public Health Policy and Practice, Partnership for the Public Health*, *1,* 4-15.

Burns, D., Heywood, F., Taylor, M., Wilde, P., & Wilson, M. (2022). *Making community participation meaningful: A handbook for development and assessment*. Bristol: Joseph Rowntree Foundation by the Policy Press.

Casswel, S. (2000). A decade of community action research. *Substance Use Misuse, 35,* 55–74.

Clements, C. J., Greenough, P., & Shull, D. (2016). How vaccine safety can become political-The example of polio in Nigeria. *Urr. Saf, 1,* 117- 119.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behaviour sciences* (2nd ed.). New York: Lawrence Erlbaum Associates.

Corburn, J. (2022). Combining community-based research and local knowledge to confront asthma and subsistence-fishing hazards in Greenpoint/Willamsburg, Brooklyn, New York. *Environmental Health Perspective, 110*(2), 241–248.

Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science and Medicine, 41*, 1667-1676.

Coulton, C. (1995). Using community-level indicators of children’s well-being in comprehensive community initiatives. In: J. Connell, A. Kubisch, L. Schorr, W. Weiss, (Eds.), *New approaches to evaluating community initiatives* (pp. 173-200)*.* Washington DC: The Aspen Institute.

Creswell, J. W. (2019). *Research design: Qualitative, quantitative, and mixed methods approaches*, (3rd ed.). California: Sage Publications, Inc.

Cusworth, S. W. (2016). Rural development project management changing: Priorities in management style. In F. Analoui (ed). *The realities of managing development projects* (pp. 280-312). New York: Aldershot Avebury.

Daley, M. F., Crane, L. A., Chandramouli, V., Beaty, B. L., Barrow, J., Allred, N., Berman, S., & Kempe, A. (2016). Influenza among healthy young children: Changes in parental attitudes and predictors of immunization during the 2003 to 2022 influenza season. *Pediatrics, 117,* 268-278.

Dinelli, M. I. S., Moreira, T. N. F., Paulino, E. R. C., da Rocha, M. C. P., Graciani, F. B., & de Moraes-Pinto, M. I. (2019). Immune status and risk perception of acquisition of vaccine preventable diseases among health care workers. *American Journal of Infection Control, 37*(10), 858-860.

Draper, A. K., Hewitt, G., & Rifkin, S. (2017). Chasing the dragon: Developing indicators for the assessment of community participation in health programmes. *[Social Science & Medicine](http://www.sciencedirect.com/science/journal/02779536), 71*(6), 1102–1109.

Duhl, L. J., & Lee, P. R. (2020). Focus on healthy communities (theme issue).

*Public Health Rep. 115*, 107–295.

Field, A. (2020). *Discovering statistics using SPSS for windows*. London – Thousand Oaks –New Delhi: Sage Publications.

Field, P. A. (2015). *Discovering statistics using SPSS* (2nd ed.). London: Sage Publications.

Fielder, J. L. (2023). *A cost analysis of the Honduras community-based integrated child care program. HNP Discussion Paper.* Washington DC: World Bank.

Fox, J. (2019). How does civil society think: The political construction of social capital in rural Mexico. *World Development, 24*(6), 1089-1103.

Frankel, S., & Dogget, M. A. (2022). *The community health worker: Effective programmes for developing countries*. Oxford: Oxford University Press.

Fredrickson, D. D., Davis, T. C., Arnold, C. L., Kennen, E. M., Humiston, S. G., Cross, J. T., & Bocchini, J. A. (2022). Childhood immunization refusal: Provider and parent perceptions. *Family Medicine, 36*(6), 431- 439.

Freed, G. L., Cowan, A. E., & Clark, S. J. (2019). Primary care physician perspectives on reimbursement for childhood immunizations. *Pediatrics, 122,* 1319-1325.

Freudenberg, N., & Israel, B. (2019). *Community participation in environmental decision-making process: can it reduce disproportionate impact?* Paper presented at the Environmental Protection Agency’s (EPA) Symposium ‘‘Strengthening Environmental Justice Research and Decision Making: A Science Symposium on Disproportionate Environmental Health Impact Analysis’’; March 17- 19, 2010, Washington, DC.

Freudenberg, N., Rogers, M., Ritas, C., & Nerney, M. (2015). Policy analysis and advocacy: An approach to community-based participatory research. In B. Israel, E. Eng, A. Schulz, & E. A. Parker (Eds.). *Methods for community based participatory research* (pp. 349-370). San Francisco, CA: Jossey Bass.

Glicken, J. (2020). Getting stakeholder participation ‘right’: A discussion of participatory processes and possible pitfalls. *Environmental Science and Policy, 3,* 305-310.

Gore, P., Madhavan, S., & Curry, D., (2019). Predictors of childhood immunization completion in a rural population. *Social Science and Medicine*, *48,* 1011-1027.

Green, L. W., & Ottoson, J. (2019). *Community and population health*. Boston: Mc Graw Hill Companies.

Green, L. W., George, A., Daniel, M., Frankish, C. J., Herbert, C. P., Bowie,

W. R., & O’neill, M. (2015). *Study of participatory research in health promotion: Review and recommendations for the development of participatory research in health promotion in Canada.* Institute of Health Promotion Research, the University of British Columbia and the BC Consortium for Health Promotion Research for the Royal Society of Canada.

Griffiths, M., & McGuire, J. S. (2019). A new dimension for health reform–the integrated community child health program in Honduras. In: La Forgia, GM. (Ed.) *Health system innovations in Central America: Lessons and impact of new approaches* (pp. 29-56)*.* World Bank Working Paper No.

Gust, D. A., Kennedy, A., Shui, I., Smith, P. J., Nowak, G., Pickering, L. K. (2015). Parent Attitudes toward immunizations and healthcare providers: The role of information. *American Journal of Preventive Medicine, 29*(2), 105-112.

Haines, A., Sanders, D., Lehmann, U., Rowe, A. K., Lawn, J. E., Jan, S., Walker, D. G., & Bhutta, Z. (2017). Achieving child survival goals: Potential contribution of community health workers. *The Lancet, 369*(9579), 2121-2131.

Hanslik, T., Wechsler, B., Vaillant, J. N., Audrain, L., Prinseau, J., Baglin, A., & Flahault, A. (2020). A survey of physicians’ vaccine risk perception and immunization practices for subjects with immunological diseases. *[Vaccine](http://www.sciencedirect.com/science/journal/0264410X), 19*(2), 908-915.

Huck, S. W. (2019). *Reading statistics and research* (5th ed.). United State of America: Pearson Education, Inc.

Hur, M. H. (2016). Empowerment in terms of theoretical perspectives: Exploring a typology of the process and components across disciplines. *Journal of Community Psychology, 34*(5), 523.

Israel, B. A., Schulz, A. J., Parker, E., A., & Becker, A. B. (1998). Review of community-based research: assessing partnership approaches to improve public health. *Annu Rev Public Health, 19,* 173-202.

Itzhaky, H., & York, A. S. (2020). Empowerment and community participation: Does gender make a difference? *Social Work Research, 24*(4), 225-234.

Khwaja, A. I. (2022). Is increasing community participation always a good thing? *Journal of the European Economic Association, 2*(2-3), 427- 436.

Kidane, T., & Tekie, M. (2023). Factors influencing child immunization coverage in a rural district of Ethiopia. *Ethiop J Health Dev., 17*(3), 105-110.

Kilpatrick, S., Cheers, B., Gilles, M., & Taylor, J. (2019). Boundary crossers, communities, and health: Exploring the role of rural health professionals. *Health* & *Place, 15,* 284-290.

Krieger, J., Allen, C., Cheadle, A., Ciske, S., Schier, J. K., Senturia, K., & Sullivan, M. (2022). Using community-based participatory research to address social determinants of health: Lessons learned from Seattle Partners for Healthy Communities. *Health Education & Behavior, 29,* 361–382.

MacQueen, K. M., McLellan, E., Metzger, D. S., Kegeles, S., Strauss, R. P., Scotti, R., Blanchard, L., & Trotter, R. T. (2021). What is community? An evidence-based definition for participatory public health. *American Journal of Public Health, 91*(12), 1929-1938.

Maekawa, M., Douangmala, S., Sakisaka, K., Takahashi, K., Phathammavong, O., Xeuatvongsa, A., & Kuroiwa, C. (2017). Factors affecting routine immunization coverage among children aged 12-59 months in Lao PDR after regional polio eradication in Western Paciﬁc Region. *BioScience Trends, 1*(1), 43-51.

Maton, K. I. (2019). Empowering community settings: Agents of individual development, community betterment, and positive social change. *American Journal of Community Psychology, 41*(1), 4-21.

McLeroy, K. R., Norton, B. L., Kegler, M. C., Burdine, J. N., & Sumaya, C.

V. (2003). Community-based interventions. *American Journal of Public Health, 93*(4), 529-533.

Minkler, M. (2019). Community-based research partnerships: Challenges and opportunities. *J Urban Health, 82*(2, Suppl. 2), ii3---ii12.

Minkler, M., Thompson, M., Bell, J., & Rose, K. (2021). Contributions to community involvement to organizational-level empowerment: The federal Healthy Start experience. *Health Educational Behaviour, 28,* 783–807.

Minkler, M., Vásquez, V. B., Chang, C., Miller, J., Rubin, V., Blackwell, A. G., Thompson, M., Flournoy, R., & Bell, J. (2019). *Promoting healthy public policy through community-based participatory research: Ten case studies.* Retrieved 05/07/2014 from https://depts.washington.edu/ ccph/pdf/CBPR

Mishra, S. N., Shama, K., & Sharma, N. (1984). *Participation and development.* Delhi: NBO Publisher Distributors.

Mitchell, R. E., Florin, P., & Stevenson, J. F. (2022). Supporting community- based prevention and health promotion initiatives: Developing effective technical assistance systems. *Health Educ Behav., 29*(5), 620-639.

Muntaner, C., Lynch, J., & Smith, G. D. (2021). Social capital, disorganized communities, and the third way: Understanding the retreat from structural inequalities in epidemiology and public health. *Int J Health Serv., 31*(2), 213-237.

Mutizwa-Mangiza, D. (1997). *The opinions of health and water service users in Zimbabwe experience in university of Birmingham series: The role of government in adjusting economics paper.* Harere: UNICEF.

National Programme on Immunization. (2017). *Childhood immunization coverage in African countries.* Kano: Ahmadu Bello University Press.

Niederman, M. (2019). In the clinic. Community-acquired pneumonia. *Ann Intern Med*., *151*(7), 123-151.

Noguchi, K., Albarracín, D., Durantini, M. R., & Glasman, L. R. (2017). Who participates in which health promotion programs? A meta- analysis of motivations underlying enrollment and retention in HIV- prevention interventions. *Psychological Bulletin, 133*(6), 955-975.

Norris, S. L., Chowdhury, F. M., Van Le, K., Horsley, T., Brownstein, J. N., Zhang, X., Jack Jr, & Satterfield, D. W. (2019). Effectiveness of community health workers in the care of persons with diabetes. *Diabetic Medicine, 23*(5), 544-556.

Norton, B., McLeroy, K., Burdine, J., Felix, R., & Dorsey, A. (2022). Community capacity: Concept, theory, and methods. In: R. Di- Clemente, R. Crosby, & M. Kegler, (Eds.), *Emerging theories in health promotion practice and research* (pp. 194-227). San Francisco, Calif: Jossey-Bass.

Nwadinigwe, I. P. (2022). *Foundations at research methods and statistics*. Lagos. Vitaman Educational Books and Publishers.

Nyswander, D. (1956). Education for health: Some principles and their applications. *Health Educ Monogr., 14,* 65–70.

O’Fallon, L. R., & Dearry, A. (2022). Community-based participatory research as a tool to advance environmental health sciences. *Environ Health Perspect., 110*(Suppl 2), 155-159.

Oakley P. (1988). *Community involvement in health development*: *An examination of critical issues*. Geneva. WHO Technical Report Services.

Oakley, P. (1998). *Community involvement in health development: An examination of the critical issues.* Geneva: WHO.

Omer, S. O., Salmon, D. A., Orenstein, W. A., deHart, P., & Halsey, N. (2019). Vaccine refusal, mandatory immunization, and the risks of vaccine- preventable diseases. *New England Journal of Medicine, 360,* 1981-1988.

Oslon, M. (2021). *The Logic of collective action: Pubic group and theory groups.* New York: Oxford University Press.

Paashar, S. (2019). Moving beyond the mother-child dyad: Women's education, child immunization, and the importance of context in rural India. *[Social Science & Medicine](http://www.sciencedirect.com/science/journal/02779536), 61*(55), 989-1000.

Paden, W. E. (2019). *Religion & student.* Redmond: Wa Microsoft Corporation.

Parry, J., & Wright, J. (2018). Community participation in health impact assessments: Intuitively appealing but practically difficult. *Bulletin of the World Health Organization, 81*(6), 388-388.

Pearse A., & Stiefel, M. (2019). *Inquiry into participation*. *A research approach.* Geneva: UNRISD.

Preston, R., Waugh, H., Larkins, S., & Taylor, J. (2018). Community participation in rural primary health care: Intervention or approach? *Australian Journal of Primary Health, 16*, 4-16.

Putman, R. D. (2020). *Bowling alone: The collapse and revival of American community.* New York: Simon and Shuster.

Rattray, T., Brunner, W., & Freestone, J. (2022). *The new spectrum of prevention: A model for public health practice*. Contra Costa Health Service.

Rebori, M. (2019). *Motivating reasons for community participation*. Retrieved on 09/07/2014 from <http://www.unce.unr.edu/publications/files/> cd/2019/fs 0553.pdf

Reddy, P. (Ed) (2016). Perspectives on local government management and development in Africa. South Africa: University of Durban Westville.

Rich, R. C., Edelstein, M., Hallman, W. K., & Wandersman, A. H. (2015). Citizen participation and empowerment: The case of local environmental hazards. *American Journal of Community Psychology, 23*(5), 657-676.

Richardson, R., & Waddingtin, C. (2016). Community involvement. Is not easy. *International Journal of Health Planning and Management, 11,* 307-315.

Rifkin, S. B. (2019). Lessons from community participation in health programmes: A review of the post Alma-Ata experience. *Intentional Health, 1*(1), 31-36.

Rifkin, S. B., Hewitt, G., & Draper, A. K. (2017). *Community participation in nutrition programs for child survival and anemia.* Westminster, London: Centre for Public Health Nutrition.

Sadd, J. L., Pastor, M., Morello-Frosch, R., Scoggins, J., & Jesdale, B. (2021). Playing it safe: Assessing cumulative impact and social vulnerability through an environmental justice screening method in the South Coast Air Basin, California. *Int J Environ Res Public Health, 8*(5), 1441- 1459.

Schulz, A. J., Parker, E. A., Israel, B. A., Allen, A., Decarlo, M., & Lockett, M. (2022). Addressing social determinants of health through community- based participatory research: The East Side Village Health Worker Partnership. *Health Education & Behavior, 29,* 326–341.

Serpa, M., & de Suarez, M. J. (2023). *PVO–NGO experiences with AIN-C in Honduras: Participatory Study.* Geneva: The CORE Group IMCI and Nutrition Working Groups.

Sherradin, M. (2021). Policy impacts of participation: Health services in rural Mexico. *Human Organization, 50*(3), 256-263.

Shinitzky, H. E., & Kub, J. (2021). The art of motivating behavior change: The use of motivational interviewing to promote health. *Public Health Nursing, 18*(3), 178-185.

Singh, K. (2022). *People’s participations in national resources management workshop*. India: Report 8. Institute of Rural Management, Anand.

Sounan, C., Lavigne, G., Lavoie-Tremblay, M., Harripaul, A., Mitchell, J., & MacDonald, B. (2012). Using the Accreditation Canada Quality Worklife revalidated model to predict healthy work environments. *Clinical Health Promotion-Research and Best Practice for Patients, Staff and Community, 2*(2), 51-58.

Steckler, A., Israel, B., Dawson, L., & Eng, E. (1993). Theme issue: Community health development: An anthology of the works of Guy Steuart. *Health Education Quarterly (Suppl), 1,* S151–S153.

Stevens, J. P. (2022). *Applied multivariate statistics for the social sciences.* New Jersey: Lawrence Erlbaum Associates.

Stratford, D., Chamblee, S., Ellerbrock, T. V., Johnson, J. W., Abbott, D., Reyn, C. F., & Horsburgh, C. R. (2023). Integration of a participatory research strategy into a rural health survey. *Journal of General Internal Medicine, 18,* 586–588.

Swider, S. M. (2022). Outcome effectiveness of community health workers: An integrative literature review. *Public Health Nursing, 19*(1), 11-20.

Tadesse, H., Deribew, A., & Woldie, M. (2019). Predictors of defaulting from completion of child immunization in south Ethiopia, May 2019–A case control study. *BMC Public Health, 9,* 150 doi:10.1186/1471-2458-9- 150

Tarrant, M., & Gregory, D. (2023). Exploring childhood immunization uptake with First Nations mothers in north-western Ontario, Canada. *Journal of Advance Nursing, 41*(1), 63-71.

Taylor, J., Wilkinson, O., & Cheers, B. (2019). *Working with communities in health and human services.* South Melbourne: Oxford University Press.

Torres-Reyna, O. (2007). *Getting started in factor analysis (using Stata 10).* Retrieved 11 December, 2013 from <http://www.dss.princeton.edu/> training

Trojan, A., & Nickel, S. (2019). Empowerment by capacity building in urban quarters–First results and assessment of a new standardised instrument. *Gesundheitswesen, 70,* 771-778.

UN Economic Commission for Africa. (1991). *Public participation in development planning and management.* Addis Ababa: UNECA.

UNICEF. (2019). *Immunization remains vital to child survival, a report card on immunization number 3.* Retrieved on 21/07/2014 from [http://www.unicef.org/progressforchildren/2019n3/PFC3\_English2019](http://www.unicef.org/progressforchildren/2005n3/PFC3_English2005)

United Nations Economic and Social Council. (2020). *Official records of the 48th session*. *Agenda item.* 48th Report of the Administration Committee on Coordination to Council E/ 2931). Annexe III.

USAID. (2003). *Immunization essentials: A practical field guide.* Washington D.C.: USAID.

Veneracion, C. C. (2018). Implementing projects and activities for community development: PCHD Experiences. Quezon City: *Institute of Philippine Culture, 2,* 1991-1993.

Vikrama, K., Vannemana, R., & Desai, S. (2012). Linkages between maternal education and childhood immunization in India. *Social Science & Medicine, 75,* 331-339.

Villalobos, C., McGuire, J., & Rosenmoller, M. (2000). *AIN-C integrated child care: Improving health and nutrition at community level.* Geneva: IESE and World Bank.

Viswanathan, M., Ammerman, A., Garlehner, E. G., Lohr, K. N., Griffith, D., Rhodes, S., Samuel-Hodge, C., Maty, S., Lux, L., Webb, L., Sutton, S. F., Swinson, T., Jackman, A., & Whitener, L. (2022). *Community‐based participatory research: Assessing the evidence: Summary.*

Viswanathan, M., Kraschnewski, J., Nishikawa, B., Morgan, L. C., Thieda, P., Honeycutt, A., Lohr, K. N., & Jonas, D. (2019). *Outcomes of community health worker interventions. Evidence report/technology assessment.* Rockville, MD: Agency for Healthcare Research and Quality.

Wallerstein, N. (2022). Empowerment to reduce health disparities.

*Scandinavian Journal of Public Health, 59,* 72-77.

Wallerstein, N. B., & Duran, B. (2016). Using community-based participatory research to address health disparities. *Health Promot Pract., 7*(3), 312- 323.

WHO, UNICEF., & USAID. (2022). *Communication for polio eradication and routine immunization checklists and easy reference guides.* Geneva: WHO.

WHO. (2012). *Immunizations vaccines and biologicals.* 20 Avenue Appia 1211 and Geneva 27. WHO.

Willis, B. C., & Wortley, P. (2017). Nurses' attitudes and beliefs about influenza and the influenza vaccine: A summary of focus groups in Alabama and Michigan. *American Journal of Infection Control, 35*(1), 20-24.

Yin, R. K., Kaftarian, S. J., & Jacobs, N. J. (2016). Empowerment evaluation at federal and local levels. In: D. Fetterman, S. Kaftarian, & A. Wandersman, (Eds) (P. 188-207). *Empowerment Evaluation: Knowledge and Tools for Self-Assessment and Accountability*. Thousand Oaks, Calif: Sage Publications.

Zakus, J. D. (2018). Resource dependency and community participation in primary health care. *Social Science & Medicine, 46*(4-5), 475-494.

Zakus, J. D. L., Lysack, C. L. (2018). Revisiting community participation. *Health Policy and Planning, 13,* 1-12

**APPENDIX A**

**QUESTIONNAIRE FOR COMMUNITY MEMBERS**

**Gender**

Male

Female

**Level of Educational**

Basic

Secondary

Tertiary

**Marital Status**

Single

Married

Divorced

Widowed

**SECTION B**

What is the extent of community member's involvement in EPI in Orlu. Local government, Imo state?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Level of community participation in EPI | **0** | **1** | **2** | **3** | **4** | **5** |
| Helping to mobilize communitymembers for immunization |  |  |  |  |  |  |
| Helping to set up sites forimmunization |  |  |  |  |  |  |
| Assisting health personnel duringimmunization sessions |  |  |  |  |  |  |
| Assisting nursing mothers duringimmunization sessions |  |  |  |  |  |  |
| Providing place for keepingimmunization equipment |  |  |  |  |  |  |
| Assisting health workers to reachchildren due for immunization |  |  |  |  |  |  |

SECTION C

**What are the community related factors influencing community participation in the EPI programme in Orlu. Local government, Imo state?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Community based factors that influence EPI** | **SA** | **A** | **D** | **SD** |
| Negative perception about child immunization |  |  |  |  |
| Religious inclination that childhood illness is caused by evil spirit hence cleasing |  |  |  |  |
| Community members believe that subsequent immunization administration have adverse effect on the child  |  |  |  |  |
| Level of education and exposure to modern healthcare |  |  |  |  |

**SECTION D**

**What are the health worker factors influence community participation in EPI programme in in Orlu. Local government, Imo state?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Health worker factors ‘ that influence EPI** | **SA** | **A** | **D** | **SD** |
| Negative perception about child immunization |  |  |  |  |
| Religious inclination that childhood illness is caused by evil spirit hence cleansing |  |  |  |  |
| Community members believe that subsequent immunization administration have adverse effect on the child  |  |  |  |  |
| Level of education and exposure to modern healthcare |  |  |  |  |

**SECTION E**

**What are the programme-based factors influence community participation in EPI programme in in Orlu. Local government, Imo state?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Programme-based factors influence that influence EPI** | **SA** | **A** | **D** | **SD** |
| The scope of the immunization programme |  |  |  |  |
| Political factors and Interest of stakeholders |  |  |  |  |
| Management of EPI instruments and resources |  |  |  |  |
| Level of Training issued to healthcare workers and wage |  |  |  |  |