

**BARRIERS TO TIMELINESS OF ROUTINE IMMUNIZATION FOR CHILDREN
UNDER THREE YEARS OF AGE IN THIRUVANANTHAPURAM DISTRICT
IN 2020-21, DURING THE CONDITIONS ASSOCIATED WITH
THE PANDEMIC SITUATION**

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degree of**

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DECLARATION

I hereby declare that this dissertation titled “**Barriers to timeliness of Routine immunization for children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation**” is the bonafide record of my original field research. It has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

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CERTIFICATE

Certified that the dissertation titled “**Barriers to timeliness of Routine immunization for children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation**” is a record of the research work undertaken by Dr Alisha Khan in partial fulfilment of the requirements for the award of the degree of “Master of Public Health” under my guidance and supervision.

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ABSTRACT

Background

The universal immunization programme is one of the most cost-effective public health measures that has reduced under-five mortality across the globe. Timely vaccination helps in maintaining the long-term and high population immunity achieved so far in communities. Delaying vaccination can bring postponement of subsequent doses with the risk of waning of immunity achieved. In a larger population, significant delays can bring the small unvaccinated population (immunocompromised, preterm births etc) under more risk. Prolonged disruptions due to events such as the pandemic, can add to the adverse consequences faced not only by the individuals, but also by the community. This study aimed to explore the barriers to timeliness of routine immunization during the pandemic situation in 2020-21.

Methodology

The study was a descriptive qualitative study. In-depth interviews of fourteen health system workers including LSGIs, and thirteen caregivers of a rural and an urban panchayat of Thiruvananthapuram district were done. Participants were selected purposively to delineate the emerging themes. Ground theory approach identified the themes across rural and urban areas which were then forced into framework analysis to identify the mis-matches between the two groups of stakeholders.

Findings

COVID 19 and the related additional workload among health care workers has largely been the barrier to timely routine immunization. Fear of covid and transportation limitations have prevented caregivers from approaching the health system. But the health system did not recognize that parents perceived the health system as a site of risk. The community support that the health system received varied across rural and urban panchayats, has also influenced the program.

Conclusions

The availability of limited immunization centers on re-starting the program had increased crowding in existing health centers. This has resulted in parents perceiving the immunization centers as risky sites and delaying vaccinations. Along with it, the health system's interaction with the caregivers was affected, remaining restricted for almost 2 years. This may have weakened the caregiver's awareness of importance of timely immunization. The covid related workload burdened the health system which has affected their regular activities and the routine reach to the community. The existing barriers in communities also has added to the burden of covid related barriers.

CHAPTER- 1

INTRODUCTION

1.1 Background

One of the most cost-effective interventions in public health is the universal immunization program for children. Across the globe, it has reduced the under-five child mortality rate and enabled better survivorship. The routine immunization with vaccines protects the population from diseases that previously claimed millions of lives each year, mostly children. Under the UN conventions, every child has the right to the best possible health and a right to be vaccinated (Pollard and Bijker, 2021).

1.2 Immunization Programs in India

The Universal Immunization Program launched in India in 1985 is one of the largest public health initiatives, against life-threatening diseases in the country (Intensified Mission Indradhanush, 2018). The program in India serves around 26.7 million infants (Gurnani et al., 2018; Intensified Mission Indradhanush, 2018; Summan et al., 2021). Free of cost vaccines against Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, severe form of childhood TB, Hepatitis B, and Pneumonia caused by Haemophilus Influenza type B diseases are provided to all children in the country. Other vaccines such as against Rotavirus, Pneumococcal pneumonia and Japanese encephalitis are also in the process of being included through the expansion of the Mission Indradhanush program (Intensified Mission Indradhanush, 2018).

Since the launch of UIP in India, an estimate coverage rate of only 65% children has been achieved by 2013. To reduce the unimmunized and partially immunized children,

“Mission Indradhanush” was launched in 2014, and subsequently, the Intensified Mission Indradhanush (Gurnani et al., 2018; Intensified Mission Indradhanush, 2018; Summan et al., 2021) in 2017. This was started with the aim to attain 90% full immunization coverage in selected districts in India by providing more resources to reach the underserved areas.

As compared to NFHS-4 data, NFHS-5 shows an increase in the immunization coverage among children aged 12-23 months, who have received all basic vaccinations, with the launch of the Intensified Mission Indradhanush program (NFHS-5(2019-21) Report, 2022). Also, according to WHO and UNICEF 2020 estimates, there is a general downward trend in all routine immunization vaccine uptake in India (WHO_India_Immunization, 2020), during the COVID pandemic period. With the effects of the COVID pandemic, there were significant disruptions to vaccination services across the globe, as reported by WHO. Nearly 3.7 million more children than in 2019 were reported to have missed out on basic vaccines through routine immunization services in 2020, according to WHO data. Among the middle income countries, India has a larger decline with DTP-3 coverage falling from 91% to 85% (WHO, 2021).

Prior to the pandemic, global vaccination rates against diphtheria, pertussis, tetanus, measles, and polio were stalled at around 86%. The WHO recommended vaccination coverage for measles is 95%, as it is the first disease to resurge when children are not protected with vaccines. The barriers to getting immunized in various demographical regions has been discussed, to improve the immunization coverage rates. The factors that act as barriers to complete vaccination schedules, or to take them on time can be either related to parental factors or due to health system related factors (Anderson, 2014). This

varies according to socio-economic region. The coverage rates in rural areas, sub-urban areas with large slums in many countries were reduced further during the pandemic (Chandir et al., 2020).

Table 1.1 Comparing state wise immunization coverage from NFHS data

Children age 12-23 months fully vaccinated based on information from either vaccination card or mother's recall(%) of each State

States	NFHS-4	NFHS-5
Arunachal Pradesh	38.2	64.9
Andhra Pradesh	65.3	73
Assam	47.1	66.4
Bihar	61.7	71
Chandigarh	79.5	80.9
Chhattisgarh	76.4	79.7
Goa	88.4	81.9
Gujarat	50.4	76.3
Haryana	62.2	76.9
Himachal Pradesh	69.5	89.3
Jharkhand	61.9	73.9
Karnataka	62.6	84.1
Kerala	82.1	77.8
Madhya Pradesh	53.6	77.1
Maharashtra	56.2	73.5
Manipur	65.8	68.8
Meghalaya	61.4	63.8
Mizoram	50.7	72.5
Nagaland	35.4	57.9
Odisha	78.6	90.5
Punjab	89.1	76.2
Rajasthan	54.8	80.4
Sikkim	83	80.6
Tamil Nadu	69.7	89.2
Tripura	54.5	69.5
Uttar Pradesh	51.1	69.6
Uttarakhand	57.6	80.8

Dadra & Nagar Haveli and Daman& Diu	50.5	94.9
Jammu & Kashmir	75	86.2
Ladakh	81.9	88.2
Lakshadweep	89	86.1
NCT Delhi	68.8	76
Puducherry	91.3	82

(NFHS-5 Phase II, Factsheet, 2022)

In India, the southernmost state Kerala, with its remarkable health achievements despite low economic status (13th Five Year Plan, 2018; Varghese et al., 2014), has achieved 77.8% full immunization coverage among children aged 12-23 months according to NFHS-5 (2019-21) (Table No.1). But this level falls below that achieved in 2015-16 where 82.1% of those aged 12-23 months had achieved full immunization coverage.

With the decentralization process launched in the state in 1996, the local self-governments (LSG) have marked their role in the protection and promotion of public health at local levels. Their role in maintaining healthcare institutions' infrastructure, the primary and secondary care institution equipments, helped in widening healthcare delivery (GO. P189-95/LAD dated 18/9/95) (Economic Review 2021, 2022). This model of decentralized planning makes Kerala stand out from other states of India. Their role has helped the state during the unprecedented 2018 and 2019 floods and during the COVID pandemic. They were further scaled up by the state government to meet the emergency healthcare needs of the people, and to provide essential services during the pandemic (Economic Review 2021, 2022). The constant support of the Kerala state government for the health department has contributed to better access and coverage (Kutty, 2000; Thomas and Rajesh, 2011). With almost every panchayat (Local Self-government department) in a district having a PHC, and subcenters and a multi-level private health care system, Kerala's health care system stands strengthened (Kutty, 2000;

Prajitha et al., 2021). With the view of “people friendly” health delivery system, the state of Kerala has transformed selected Primary Health Centers (PHCs) to Family Health Centers (FHCs) with need based approaches by redefining the package of services and improving their quality (Economic Review 2021, 2022; Vijayan et al., 2021). The routine immunization services in every panchayat in the State are provided at the grass root levels through FHCs and PHCs, by institutional, field and outreach-based services.

1.3 Rationale/Justification for the study

Despite a fair achievement in the health sector, the State had a reduced coverage rate in NFHS-5 compared to NFHS-4 (Kutty, 2000; Prajitha et al., 2021). Understanding the factors that influenced this reduction can guide the policy makers to develop better strategies to mitigate against the impact of such crises and to manage the community’s achieved health status at status quo. Identifying the characteristics and views of those who had timely vaccinations and those who had delays and the reasons for the delay or timeliness, would enable better targeting of those who are vulnerable to delay during future disruptions. Identifying the factors from the health system and local self-governments that can contribute to the delay in vaccinations, can also help in developing plans for handling future disruptions. At the same time, the factors that helped the system achieve optimal coverage without a letdown in the rates need to be recognized. This will enable fostering those components that foster better coverage.

A qualitative approach offers an opportunity to understand the various perspectives of stakeholders, such as beneficiaries, health care service providers and other stakeholders such as LSGI persons. This will enable identification of the newly emerging perspectives of the beneficiaries and the system and the contexts in which they functioned under

during the unprecedented pandemic. This study thus aims to explore and understand the barriers to timely immunization during the period 2020-21 in the context of Kerala.

1.4 Research question

What were the barriers to timely routine immunization of under three children during the pandemic in Kerala?

1.5 Objectives

1. To identify the physical and socio-economic contexts of beneficiaries and their caregivers which contribute to delayed vaccinations during the pandemic period among children aged 12-36 months.
2. To describe the perspectives of health system functionaries and other stakeholders such as local self-governments on what could have contributed to delay in vaccinations within the community.

1.6 Chapters

The first chapter gives a background and introduce to routine immunization in India and how it got impacted by COVID. The second chapter includes a review of literature relevant to delay in routine immunization. The third chapter consists of a description of the methodology followed in the study. The fourth chapter details the results of the study, and the last chapter discusses the gaps identified through the study and relevant public health recommendations for appropriate interventions.

CHAPTER – 2

REVIEW OF LITERATURE

This chapter provides a summary of the evidence on delay in immunisation and the barriers that result in delay from a global and Indian context. The relevant literature was identified using PubMed search, with the terms “delay in routine immunization”, “delay in vaccination in children”, “barriers in routine immunization”, “barriers in vaccination in India” and “delayed immunization”. The search was restricted to the period 2000 to March 2022.

The literature review has been described in the following sections according to how delay in immunization is relevant and the causes for it, and the barriers causing it from the health system and the caregivers perspective.

2.1 Delay in immunization

Immunization with vaccines is scheduled at specified times of a child’s life. Each vaccine is scheduled according to the time best possible when maternal antibodies wane, and the time when each child can develop and sustain the immunity against each infection, to have maximum protection for a longer time (*Epidemiology and Prevention of Vaccine Preventable Diseases*, 2021). Timely vaccination is important for vaccine preventable diseases, as failure to do so can reduce a community’s achieved long-term immunity against these diseases (Guerra, 2007; Riise et al., 2015).

A vaccine is said to be delayed when it is received later than 1 month (Riise et al., 2015). Delayed utilization of vaccinations has had effect in the form of outbreaks and increased

hospitalizations due to vaccine preventable diseases in developed countries, even those with higher immunization coverage (Choudhary et al., 2019).

Despite increasing immunization coverage and reduced under-five mortality, India still has a relatively high burden of measles, diphtheria, pertussis, diarrhea, and this accounted for the highest number of under-five deaths globally in 2016 (Choudhary et al., 2019).

The delay in immunization can expose children to prolonged risk of disease and transmission of diseases (Shrivastwa et al., 2016). Thus, it is important to assess the quality and full benefits of the program, as coverage alone cannot give the herd immunity and there is the risk of transmission of an infection (Shrivastwa *et al.* 2016, Rauniyar *et al.*, 2021). The delay in vaccinations can be due to the delay on the part of the beneficiaries or the due to health system factors.

2.2 Global burden

In the Philippines, prior to the COVID pandemic, an estimation of prevalence of timely immunization found it to be 74.4% for BCG, 70.3% for Penta 1, and 39% for Penta 3 among infants aged less than 2 years in 2016 (Raguindin et al., 2021). This decline was seen along with a downtrend in immunization coverage in Philippines.

Among 14,282 children in Brazil, delay in immunization was seen in about 9.4%, 23.8%, 36.8% and 39.9% children for first, second, third and the booster doses of Penta vaccine respectively (Sartori et al., 2017).

The odds of delay in immunization increased (Odds ratio = 3.77, 95% CI: 2.86- 4.96) as compared to the delay in immunization before COVID in children aged 0 – 2 years in Ontario, Canada (Lee et al., 2022).

2.3 National burden

As per NFHS-5 (2019-21) of India, 77% of children of 12-23 months have received all basic vaccinations, which was an improvement from the 62% according to NFHS-4 (2015-16), with the launch of the Intensified Mission Indradhanush program. More than 70 percent of children age 12-23 months are fully vaccinated in majority of districts of the country. In only a few districts is this percentage lower than 50 percent, and most of these districts are in the north eastern states (NFHS-5(2019-21) Report, 2022).

The literature review on timeliness of immunization in India and the factors related to it are limited in availability. Yet, a study attempted to estimate the delay, as the prevalence of delayed vaccination using NFHS-4(2015-16) indicated that 23.1%, 29.3% and 34.8% of children aged 10 to 23 months had delayed immunization for BCG, DPT, and Measles doses respectively in India (Choudhary et al., 2019; Masters et al., 2019).

In Kerala out of the 77.8% immunized, 98% were partially vaccinated and only 2% have not received any vaccine at all before the time of the NFHS-5 survey (Kerala NFHS-5, 2021).

2.4 Barriers that caused delay in routine immunization prior to COVID

The barriers in timely immunization are seen in health system as well as in households and for caregivers (Anderson, 2014). The description of the barriers identified in the literature have been outlined in the following sections.

2.4.1 Household barriers

Many studies have identified multiple household level barriers to routine immunisation.

a. Accessibility barrier with immunization centers situated far

The children of caregivers in inaccessible rural as well as residing in inner cities in urban areas have had partial and delayed vaccination due to difficulty in accessing the immunization centers (Yazdani et al., 2021). For urban caregivers of Yemen, distant centers and mostly the lack of information made immunization difficult for them (Ba'amer, 2010).

b. Immunization among migrant workers

Migrant workers who are constantly moving to places where the spoken language is not familiar have less access to the service. Families on the move continuously will have difficulty in identifying the center for immunisation. With less engagement, they also have lesser awareness of and knowledge about immunization. This constant mobility is a barrier for such families. Often nomadic families register themselves with multiple names in different settings. The name changes that they attempt can further act as a barrier for the health system to include them in their system (Larcher, 2001).

c. Hospital based immunization service

Providing the immunization services in hospital centers alone, can affect the accessibility for those who are staying far away from these centers. With less outreach sessions, and health centers in a community, this poses a limitation in availability and accessibility of vaccines (Larcher, 2001). This has changed in many countries with the concept of primary care. But it must be examined to determine its functioning during COVID restrictions.

d. Changing mother's residence

Social behaviour such as changing the mother's residence continuously during their postnatal period, from husband's house to father's house and vice versa in Gujarat, reduces the opportunity for them to get reminded by the system. The health system workers register the name of the daughters-in-law and not daughters, from the husband's

residence. This registration helps the system to remind the mothers regarding timely full immunization (Patel and Pandit, 2011).

e. Social interactions between mothers in urban and rural differences

Social interactions and engagements in rural areas motivate mothers and caregivers for immunization when services are ensured. These social networks act as a facilitator in rural areas. The barriers in rural areas include accessibility, local perceptions of health such as vaccinating a baby for being weak, seeking alternate local healthcare for protection of infants, as part of social shaping as in Gambia (Cassell, 2006).

Poverty, mother's education, women with more children, and experience of less friendly staff in the centers available to them were few of the experiences of the urban mothers who had delayed or not immunized their children. The social interaction was more seen in rural than in urban, during the immunization sessions. This played an important part in motivating the rural mothers to complete the vaccine schedule (Cassell, 2006).

f. Parental knowledge of immunization

Mothers who were aged more than 30 years old, are more influenced by the vaccine knowledge as they become familiar with them. This has helped them to ensure vaccination and children of these mothers were more likely to be vaccinated. Children of mothers with higher educational level had higher coverage levels. (Borràs et al., 2009; Luman et al., 2003).

Illiteracy along with distance more than one kilometer from the vaccination center, influenced a mother's forgetfulness/negligence for routine immunization of their children (Patel and Pandit, 2011). Mothers who are not aware of the requirement of vaccines have a higher chance of not vaccinating their children or delaying them (Ba'amer, 2010; Patel and Pandit, 2011; Yazdani et al., 2021).

g. Vaccine hesitancy/ Refusal

Vaccine hesitancy has been defined by WHO as “refusal of vaccines despite availability of vaccine services”. It is also stated as “a motivational state of being conflicted about or opposed to getting vaccinated” (He et al., 2021; Olusanya et al., 2021). It is a continuum state between high vaccine demand and complete vaccine refusal. The knowledge of risks and benefits of vaccines and immunization, viewing it as a part of the child’s right and as their responsibility, is one of the key decision process in initiating for immunization services according to 2014 WHO SAGE working report on vaccine hesitancy (SAGE_Vaccine Hesitancy, 2014)

2.4.1 Health system barriers

The health system barriers found in the review include the attitude and practices of the workers, their work, vaccine availability, effective communication.

a. Attitude of doctors

The physicians in the immunization center do not consider it as part of their work to conduct immunization for children. They consider other health workers as responsible for the immunization program. The doctors are less likely to vaccinate the children when the health workers are available. They also consider that it is the lack of knowledge among the caregivers that is the barrier for their children’s immunization (Gargano et al., 2012).

b. Communication with the community

Effective communication strategies considering the cultural aspects of a community helps in higher coverage of immunization (Nasiru et al., 2012). The planned communication with the community gate keepers of varied positions, motivated the community for higher coverage of immunization.

c. Health staff reminding parents

Timely reminders for vaccination by the health staff acts as a facilitator for vaccinations. Its absence is a barrier to timely vaccination in a rural district in Gujarat (Patel and Pandit, 2011).

d. Non availability of vaccines

Due to irregular stock and delivery, there were shortages of vaccines in primary health center, district, and state levels. This acts as a barrier to partial or delayed immunization (Patel and Pandit, 2011).

e. Underperformance of health staff

A deficiency in commitment to immunization related tasks, possibly due to lesser number of trainings received and/or lack of accountability among the health workers can be reflected in its impact on immunization rates. The caregivers can also get affected by unfriendly staff, which leads to demotivated behaviour from the parents (Yazdani et al., 2021).

f. Transportation in remote areas

Those isolated remote areas with access difficulties for immunization imply vaccine inequality in the community. This will not help in achieving the required herd immunity to keep the vaccine preventable diseases at bay (Metcalf et al., 2015).

g. Motivating female health workers

In a pilot study in Nigeria, recruiting female health workers increased the immunization coverage along with the other mother and child programs (Uzondu et al., 2015). Even without permanent employment, they were motivated to work in rural centers, when they were given facilities to stay, to do house visits by providing them with transportation that were “gender-sensitive” (two-wheelers that does not reveal women’s legs and abided by

their society's culture), and by appointing sufficient number of workers (Uzundu et al., 2015).

2.5 Barriers that caused delay in immunization due to COVID pandemic

Social distancing and stay-at-home orders were the common barriers for vaccine administration during the pandemic (He et al., 2021). New parental perspectives on vaccines can come up due to the pandemic.

In many states in India, the immunization services were stopped during COVID for a short period of time. The lower administration of vaccines can be due to lack of public transportation, fear of getting COVID during hospital visits, containment zones deployment etc. Vaccine supply to health centers may have been affected with the travel restrictions due to COVID also (Vasavada et al., 2020).

2.6 Summary

The barriers identified through review of literature have been summarized as follows.

Household barriers identified prior to the pandemic-

- Accessibility barrier with immunization centers situated far
- Difficulties for immunization among migrant workers
- Availability of only hospital-based immunization service
- Changing mother's residence interfering infants' immunization
- Social interactions between mothers in urban and rural differences
- Maternal education influencing immunization
- Vaccine hesitancy/ refusal

Health system barriers prior to the pandemic-

- Shifting responsibility from doctors
- Unplanned communication with the community
- Health staff reminding parents nonuniformly.

- Non availability of vaccines
- Underperformance of health staff
- Limited transportation in remote areas creating inequality in immunization
- Motivating female health workers influencing the program.

The barriers to immunization during COVID, that are identified, can further accentuate the existing burden.

2.7 Timeline of events in immunization program in rural and urban panchayats in Thiruvananthapuram

- a. The routine immunization program along with outreach sessions were decided to put on hold when covid lockdown was announced on 24th March 2020 (COVID19 Kerala Guidelines, 2020).
- b. It was decided later to re-establish the program under the Universal Immunization Program, as early as possible in health services on April 16th. The private hospitals that used to conduct immunization sessions were also advised to restart. Advisories were also given along to conduct the sessions according to the covid situations and following the covid protocols. This was started in FHCs in the initial months. Outreach sessions could not be started immediately as it worked before (Advisory for restarting immunization, 2020).
- c. The program was started in few subcenters the same year, according to the covid situations in each panchayat, as there were containment zones regulations also. It was towards late in 2021 and early 2022, the outreach sessions started.
- d. Catchup campaigns under Mission Indradhanush 4.0 was planned and conducted in the state from March to May 2022 (IMI 4.0 Launch, 2022: 0).

CHAPTER - 3

METHODOLOGY

3.1 Study Design

The study is a descriptive qualitative study. Using a qualitative approach, I explore the perspectives that emerge from caregivers of children and the health care providers regarding the difficulties experienced for vaccinating children during the pandemic period. In-depth interviews of caregivers of the beneficiaries and the health care workers in the public health units using an in-depth interview guide was the main tool used in the study.

3.2 Study setting

The study was in Thiruvananthapuram district of Kerala state. One urban and one rural panchayat were selected purposively from Thiruvananthapuram district. The public health units linked to the panchayats were included. The rural and urban panchayats each had one Family Health Centre (FHC) , and four Subcenters. In the urban panchayat, under one subcenter, there are three to four wards. In the rural panchayat, there are five to seven wards under each subcenter. The beneficiaries were selected from the registers of ASHAs of the panchayats.

3.3 Study participants and sample selection

From the health system, the Medical Officer, Junior Public Health Nurse (JPHN) and the Accredited Social Health Activists (ASHAs) who consented were included in the study.

Within the panchayat, other workers whose activities impinge on health such as the anganwadi worker and the Integrated Child Development Service (ICDS) Supervisor and the local self-government's functionaries linked to the selected panchayat and who

consented to participate in the study were selected for the study. The caregivers of the children 12-36 months of age were selected from the ASHA's registers identifying those who had delay in their immunizations. The possible delay was also confirmed using the dates in their vaccination card.

The inclusion and exclusion criteria for selecting informants for this study are detailed in the following paragraphs.

a. Inclusion Criteria:

1. Caregivers of 12-36 months children who reside in the district for past 2 years.
2. Medical officer in charge since past 2 years' operating in the areas where caregivers reside.
3. JPHN, ASHA workers and Anganwadi workers who were in duty during 2020-21 in the areas where the care-giver reside.
4. Other stakeholders such as Chairman of the Health standing committee of the Panchayat, the various representatives of the community who have a stake in the universal immunisation program's functioning at the local level.

This was done to ensure that the selected informants had experience of the pandemic conditions in that specific context.

b. Exclusion Criteria:

1. Caregivers of preterm children
2. Caregivers of children who has not taken any vaccines due to their religious views.
3. The health system workers who took charge in 2021.

The caregivers were initially approached by asking their availability, through their ASHAs. Some of them were later approached without the presence of ASHAs, to understand their perspectives on the health system in privacy.

The exclusion criteria ensured that only those with experience in that specific panchayat were included. Among caregivers, those whose children were pre-term might have distress related to the growth and potential delays. To avoid additional distress for the mothers/caregivers, these groups of caregivers of pre-term children and those who could not vaccinate due to religious requirements were excluded.

3.4 Data Collection Techniques

Data collection was conducted for two months, starting from 14th of March till 21st of May 2022. The investigator approached the participants, who consented to take part in the study. They were given a brief introduction on the research purpose and provided with the participant information sheet. After receiving their consent, they were interviewed at their convenience in a place of their choice. The interviews were audio-recorded after consent, ensuring their privacy and confidentiality. Those who did not provide consent to audio record the interview, careful notes of the interview were written down. Handwritten notes were taken for 2 participants of the health system.

The audio-recorded interviews were transcribed using Transcriptions Software. It was coded using Student license of ATLAS.ti software version 22.0.2. A total of 14 health system participants and 13 caregivers from both the panchayat were interviewed in this manner. Initial five interviews of four health system workers and a caregiver, were transcribed verbatim to Malayalam and translated to English. The interviews that followed were directly transcribed verbatim to English, carefully looking for the Malayalam words to retain them according to the initial Malayalam transcripts. The transcription to English was typed in Transcription Software to note the time of the interview along with the transcripts. The transcribed interviews were taken for coding in ATLAS.ti.

3.5 Methods of Data Analysis

To identify the barriers and facilitators for timely vaccination, the interviews across caregivers of the beneficiaries were inductively coded line by line. The emerging codes were grouped in terms of their commonalities or the connections into axial codes. These axial codes and their linkages were considered to develop the specific themes for this analysis. The rural and urban perspectives sometimes were common, and some perspectives were uniquely urban or rural. Therefore, the emerging themes across caregivers of rural and urban were matched and grouped into those similar in rural and urban areas, those applicable only for rural areas, and only for urban areas. These matched themes were appropriately labelled to identify the reasons for delay or timely vaccinations. This exercise was for the health system and the local self-government participants transcripts to identify their perspectives across rural and urban panchayats. The findings from both categories of informants are reported in the chapter on results. To develop public health programmatic recommendations to overcome the barriers identified, I used framework analysis to match the barriers across care givers and health system functionaries. Framework analysis enabled a matching of the perspectives of care givers and those of the health system professionals. Each of the themes were merged to identify specific barriers common to both categories. By reading across both categories of informants within each of the matched themes in the framework, we could identify the gaps in perceptions which need bridging through public health initiatives. These merged themes of both the panchayats were matched to identify the possible convergences and divergences across caregivers and health system. This enables identifying the reasons for delay in vaccination of under three children that were due to the system or nested in conditions that prevail. This analysis forms part of the chapter on 'Discussion' in the thesis.

3.6 Positionality

As a female medical practitioner in allopathic medicine, my understandings of what the field workers experience to conduct the system and make it progress was rather naive. I started the study on how to identify the barriers that could have occurred during the pandemic crisis, but in the process, the hurdles that the fieldworkers and the community that they had to go through to run a system that keeps our children safe were also explored.

As an individual from a middle-class background, experienced life in urban areas and achieved medical training from a rural area, I stand with all the participants in my study from various socio-economic backgrounds and attempted to take a glimpse into their lives. The caregivers attitude towards their children's health benefits were also seen through the maternal eyes of the researcher, as well as a medical practitioner. As an outsider to the field worker's perspectives, I was trying to explore how they were making things happen. The participants of the rural areas may have responded more openly had I was one among them, as they saw me from a professional lens alone.

CHAPTER – 4

RESULTS

4.1 Introduction

This chapter presents the results of the qualitative analysis of the interviews from the caregivers and health system functionaries in both rural and urban panchayats. The objectives of the study were to describe the physical and socio-economic contexts which may contribute to delay in vaccinations for children aged 12-36 during the pandemic period and in addition to describe the perspectives of health system functionaries on what could have contributed to it. This has been done by undertaking in-depth interviews with these key stakeholders and analysing the interviews using inductive coding to identify the emerging themes which point to specific barriers. In part these perspectives across caregivers and health system functionaries varied by rural and urban areas. Therefore, the results are presented in groups, categorized as common to rural and urban areas, belonging only to rural areas and only to urban areas. This will enable an identification of targeted program corrections.

SECTION I - The barriers among children and caregivers

This section includes the profile of the beneficiaries and their caregivers, and the emerging themes to understand their physical and socio-economic contexts which contribute to delayed vaccinations during the pandemic period among children aged 12-36 months.

4.2 Profile of the caregivers and the children

The following five participants were taken from the health system from their list of beneficiaries, with delay. Their delay was confirmed, from their date of birth and the due

dates of vaccines, given in their vaccination card. The participants' caregivers were interviewed to understand the circumstances that lead to delayed vaccinations.

Table 4.1 The profile of caregivers and children participants, with delay in immunization

Delay in vaccination	RURAL	URBAN			
	C3	C1	C2	C3	C5
Age of the caregiver	25	23	28	28	30
Religion	Hindu	Hindu	Hindu	Hindu	Hindu
Caste	General	General	OBC	SC	General
Marital status	Married	Married	Married	Married	Married
Highest educational level	Graduate	Diploma	Graduate	Post-Graduate	Graduate
Employment status of caregiver	Not employed, going for PSC coaching class	Not employed	Regular employed	Not employed	Not employed. Worked as an accountant before 1 st child, now going for PSC coaching class
Occupation of caregiver	None	None	Administerial manager– Govt	None	None
Occupation of head of family	Skilled – Postman	Skilled – Carpenter	Administerial manager- Govt	Sales and Services	Sales – Medical representative
Age of mother at 1 st birth	24	19	27	25	24
Sex of the child	Female	Male	Male	Male	Female
Birth order of the child	1	2	1	2	2
Age of the child (years)	2	2	1	2	2
Number of household members	8	7	6	6	4

All the caregivers in the study were mothers of the children. The mothers who had a delay in their children's immunization, belonged to general, OBC as well as SC caste, having at

least education upto diploma following higher secondary school. One of the care givers was a post graduate degree holder.

The caregiver's physical and socioeconomic contexts were explored further also. The themes merged from both rural and urban and from only rural have been described further.

4.3 Factors affecting uptake of immunization services

4.3.1 Themes common to both rural and urban

a. Fear of COVID among caregivers

Care givers of both rural and urban panchayats, were afraid to take their children for vaccination to the centres where it was being provided. For care givers, this included a fear of contracting COVID when they took their children for vaccination and a fear that their children would contract COVID. They mention the extra efforts they made to protect their children from COVID. Those who carried their children to centres mentioned how much effort they put into covering up their children from any exposure. They avoided even sitting on the chairs provided while waiting for their turn. They attempted to put on a mask to their infants, but this was very difficult with infants who kept nudging off their masks.

"We had tension of course, like everyone. Because, it is not just me. We have more number of household members here, so it is of course a tension."

-36 year old caregiver C1, mother of 2 and a half year old boy child, rural panchayat.

"Yes, That was the concern alone then. I am already a tensed person. Since it was there since my pregnancy days. SO since then, I am having those concerns and tension. Keeping the sanitisers, mask, etc...When taking the baby along, we had the tension of course. If by any chance the baby get COVID, such concerns were there. We were scared. Even there were chairs, we don't even sit there."

-28 year old caregiver C2, mother of 1 year old boy child, urban panchayat.

“That time, kid won’t wear mask and all, she takes it off. Now she wears them. We tried to keep distance like everyone.”

-26 year old caregiver C6, mother of 2 year old girl child, urban panchayat

a. Cost barriers of immunization

The cost barriers for routine immunization included the cost of vaccines, the cost for travel to and from the health centers at a time when no outreach sessions were conducted and preference for distant center, and the cost of income reduction and time without employment. It was a significant cost in terms of travel and vaccine cost for those who lost their employment during the pandemic.

Parents after receiving childbirth services, continue immunization of their infants from the private centres which they opted for delivery, without knowing the cost and the burden of the vaccines that they later began to perceive as expensive. The caregivers from rural areas are advised to go to private centres for the mothers’ postnatal check-up on the same day when the baby is due for the first Penta vaccine. With the difference in vaccines available in private and government sectors, parents have no choice but to retreat from private centres and go to govt centre for immunization by the time they perceive the burden of the cost of vaccines. When they feel the burden of the costly vaccine and they try to approach the govt health centre, they are advised to complete the same vaccine course taken from the private centre. The difference in the vaccines provided from certain private and govt centres, makes the govt health workers advice to complete the course taken from private centre. The govt health care providers recognise this burden, when the parents bring their infants for the second dose of the vaccine, which may not always be the same as of the public centres. This is an added cost burden for those who receive the

essential service from centres that are preferable and convenient for them to approach, be it a private centre providing vaccines or a govt health centre.

“Here in hospital Y, the cost of Penta vaccine is around 2000. One person took vaccines from hospital Z. It is Rs 4000 for Penta 1st. We are giving 1st and 3rd only. We don’t provide 2nd dose. 2nd dose is given by private hospitals. Since they took the 1st Penta from private, they were like, since they have taken from there, they wanted to get the rest of the vaccines from there.” - ASHA1 of rural panchayat

The immunization programs were not conducted in subcentres early during the COVID period or in other outreach centres. It was not conducted in the usual anganwadi centres either. This has forced the community who used to avail the services from centres closer to their homes, to travel further with the limited transport available to the FHCs and CHCs. At a time when they were afraid to go to the main health centres with the children, they had to be motivated during this time regarding safe immunization sessions. At a time when the poor in the rural areas could not work for their daily wages, it was difficult for them to attend the immunization sessions that needed transportation to reach the centre. The ASHAs intervened to provide them local transport from their income to those who could not afford it.

“I alone get her to the centre. It is very far from here. If I have to go by bus, I will have to take two buses. Or if I have to walk, I have to go to X and go so. Or by auto, we can go directly. There was an auto chettan nearby here, so when he was going from his house, I also join him.” ... “ASHA worker helped me during then. She gave me money and also provided me auto for travelling. She called me telling the dates, and she asked me if it is possible for me to go there for it. When I told about my situation, she helped me so.”

PI – “So how will be the charges for auto from here till FHC?”

“Some take Rs 110 - 100 from me.”

-42 year old mother C6, of 3 year old girl child, rural panchayat.

In the urban panchayat, when mothers routinely manage pregnancy care from private hospitals, their new-borns are given birth doses from these centres. Parents tend to follow the same private facilities for their baby's vaccines along with the mother's postnatal check-up. The private centres also advise them to take the immunizations including the optional vaccines from them. The optional vaccines added along makes immunization expensive when taken from private centres.

For caregivers who prefer govt centres distant to them for the difference in services provided or attitude of health workers in the urban panchayat, there is a travel cost attached. The travel cost and time that comes along for routine immunization of their child also acts a barrier for timely immunization of their infants. It is also perceived for those who take immunization from private centres.

"Here in the health centre, it is there only once in a month. The vaccine dates can come on other days also, for that we go there. There is injection available on all days there. So we have an assurance it will be there."

"In the beginning, her initial vaccines for around 3 visits were taken from Y hospital, where she was born. During then myself and husband took her for immunization then in vehicle. We went by auto then. Yes it is very far from here."... "The auto travel was taking around 45 minutes, so there would be a charge for it. Then there were optional vaccines from there. It was separate from the regular vaccines. It went around Rs 2000. It was for pneumococcal vaccine."

"Husband does have to take leave for it too. He takes leave for afternoon work. His work is usually afternoon."

--25 year old mother C3, of 2 year old girl child, rural panchayat

Employed parents in the urban areas, need to plan to keep aside work to take their children for immunization. An employed mother who has to take her infant for immunization has to apply for leave for the day, after the govt approved maternity leave. The accompanying father also has to do the same for their infant's immunization. Adding

to the vaccine costs, the loss of income for parents while taking a day leave from work for immunization visit is something that comes along as essential services in rural communities. This expense of time and cost involved when their salary is reduced for the leave taken, also acts as a cost barrier for routine immunization.

“When husband comes, he informs as ‘late’ in work place. Or sometimes ask for half day or one hour late. They cut the salary for that time.... There will be a cut from monthly salary.”

-28 year old mother, C3, of 2 year old boy, urban panchayat

b. Non-Availability of public transport

The restricted transportation during the COVID lockdowns, affected the mobility of the community. The caregivers from both areas had different experiences with this limitation.

The caregivers in the rural panchayat, experienced difficulties in reaching the immunization centres during COVID. There were few locally available transport such as autorickshaws available. The less privileged daily wage earners who did not have work during the COVID lockdowns, could not afford the cost of these locally available transport. The limited number of immunization centres made available during that period were distant for many to reach. This was so for many caregivers in different areas of the rural panchayat. The ASHAs, whenever it was possible, intervened for those caregivers who were distant and could not afford the available transportation then. This helped some of the caregivers to get their timely immunizations.

“I alone get her to the centre. It is very far from here. If I have to go by bus, I will have to take two buses. Or if I have to walk, I have to go to X and go so. Or by auto, we can go directly.”

PI – “So how will be the charges for auto from here till FHC?”

“Some take Rs 110 - 100 from me.”

-42 year old mother C6, of 3 year old girl child, rural panchayat.

Whereas in urban panchayat, a similar difficulty was not perceived by the caregivers. Even though they were situated near and far from subcentre and FHC or other private centres, they were able to commute with their own vehicles, or were mostly able to afford the local transport when there were restrictions for transport. It was not felt as expensive as felt by those in rural areas. In the rural panchayat, the distance to the available immunization centres, the limited transportation was a burden to caregivers.

“All vaccines are free. A petrol charge is one cost that can come. But that is from husband’s hand, I have not asked him about that. So I am not able to tell them. Even to hospital X, husband takes there by bike.”

-28 year old mother, C3, of 2 year old boy, urban panchayat

c. Limited interactions with the doctor during immunization

The limited interaction among caregivers and the health workers for routine work, may have contributed to certain misconceptions among caregivers in the rural panchayat. The instruction given regarding COVID vaccination for adults was mistaken as being related to routine immunization for children. The advice was about COVID vaccination, to be taken after three months in case, one had been COVID infected. Caregivers mistook it as similar in case of immunizing their infants, 3 months after their COVID positive status. This may have happened at a time when COVID vaccination was given more importance, and was more focused.

At the same time, the communication from the doctors during the immunization sessions were restricted during the this period so as to reduce direct contact as part of COVID protocols. This may not have helped in sensitizing the caregivers of the rural panchayat enough. Along with this, lax behaviour with respect to timely immunization of their children was also noticed in the community. The caregivers thought that it wouldn’t be a

problem for the child if immunization happens at a later time other than the due date, and that it is not a matter to be concerned about.

“You can take the vaccine even after the date. We just have to go to them. Suppose if we couldn’t take the vaccine on date, in the next month, we have to mention what the reason for missing the vaccine on the due date and they can take the vaccine. If there is fever for the child, vaccines is not taken. We have to go and consult the doctor.”

“No no, there won’t be any problem for the child. We cannot take the vaccines if the child is having diseases, so it is alright maybe.”

- 32 year old mother C4, of one and a half year old girl of 3rd birth order, urban panchayat.

In the urban panchayat, when immunization was restarted with limited centres, there was a general crowding. All the health system workers together managed the crowding to provide safe immunization sessions following COVID protocol. During this time, it was difficult for the system to provide awareness sessions to the mothers regarding immunization or to even talk to them. With limited centres and the crowding that followed, caregivers worried about having to stay longer for the session. According to the services managed in the centre, they were able to leave the centre as soon as they receive their infants’ vaccines. Also, when immunization on restarting in the convenient subcentres, once in a month as it was before, some of the caregivers had to depend on tertiary centres and other FHCs which were distant for them. This had created a gap in the doctor-patient interaction during immunization sessions, that have led to a lax behaviour in taking timely immunization for children.

“They only give the vaccine, after asking the then health of the child, if the child is comfortable.” “I have not asked them much also. Since all are taking, we are also taking it. Anyway, they are asking us to take it because it is needed for us. So we are taking it.”

-36 year old caregiver C1, mother of 2 and a half year old boy child, rural panchayat.

Along with this gap that happened while managing the immunization session, caregivers were also concerned about the less attention that they received for their infants during these sessions. It is a routine to check the weight of the baby, and a consultation with the medical officers before giving vaccines, which could not be provided during these sessions. This also influenced their decision to go for immunization to distant health centres. These influences again add to the cost burden for routine immunizations. This was more seen in urban panchayats than rural centres. Depending on tertiary centres for immunization than the primary and the subcentres which are situated nearby is also a factor that influenced routine immunization.

“The health centre people don’t talk much. They tell to give the medicines correctly”.

-26 year old working mother C6, of two year old girl, urban panchayat

The migrant workers who reside in the urban areas, along with their families were motivated by the health workers, the ASHAs in the community for immunization.

Migrant workers coming from different communities have different perceptions regarding immunization. There are those who are not interested in immunizing their children among them. One of the caregiver participant from the urban panchayat, shared that she waits for her husband, to leave home for work, so that she can take her child for immunization. She was eager to do as the health system advised her. But it was not possible for her to make the father of her child understand its importance. Neither was she able to understand the details that was given in the vaccination book that was provided. The availability of Vaccination books in the regional / local language that the migrants understand can influence them as well as motivates them to take up the health services.

“No, they don’t tell anything about vaccinations, they give the child vaccine and that’s all. I always ask them, if it will affect him and his health.”

-22 year old mother C7, of one and a half year old boy of migrant family, urban

Certain wrong perceptions regarding immunization in the community exist among ASHAs, and other elders, who are also the caregivers of children. An elderly caregiver who was interviewed along with the mother of the child, mentioned that vaccines are given to babies to prevent them from the diseases that come along with breast feeding, from the mother. The caregivers who were mothers, were more aware on the diseases that are controlled, and had been eliminated so far using vaccines. They acknowledge the importance of the vaccines, but are not always concerned about managing to vaccinate their children by the date when it was due.

4.3.2 Themes emerging only from rural areas

a. Social interactions across mothers motivating others for immunisation

Communities have been witnessing the immunization system for years, and thus are aware of the purpose of immunizing their children. They are aware and know that they need to approach the health system itself at least by the next vaccines due date, on occasions when they could not take them on time. This was more evident from the participants who live near or around the health centres in the rural areas.

The rural caregivers engage with other mothers in the community, reminding each other of their infants vaccine due dates. The mothers in the community exchanging day to day life and related to health and food given to their child, also talk about their immunization visits. These social interactions in the community facilitate the routine immunization of children, along with their health.

In rural areas, mostly mothers and grandmothers take their infants for immunization. The role of father in immunization gets minimized for those who can go to the health centre easily, as they stay nearby the health centres. The mothers and the grandmothers when they bring their infant, they arrange the local transportation that they keep contact within the community. The caregivers who are distant from the health centre are sometimes

accompanied by the fathers also. The involvement of both the parents for immunization was seen less in rural communities than urban. Whereas the socially involved caregivers and mothers were more evident in rural communities.

“There are children of same age too here and for friends. So when they talk about taking vaccines for them, that reminds me about my daughter’s RI also. That it is time for her too. Interacting with them also reminds me so.”

- 25 year old mother C4, of one and a half year old girl, rural panchayat.

SECTION II - The perspectives of health system functionaries

The emerging themes across both the urban and rural communities for the objective to describe the health system functionaries perspectives, on what could have contributed to delay in vaccinations within the community, have been detailed here in this section.

These themes are described in the following paragraphs. The participants from the health system for this study has been listed in Table No.3.

Table 4.2 The health system participants from rural and urban

Urban participants	Years of work experience	Frequency of report submission per month	Frequency of meeting per month
Local self-govt representative	11	1	as per needed
Medical officer	5	as per needed	as per needed
Grade-2 JPHN	13	1	>10
ASHA-1	14	1	twice
ASHA-2	10	1	twice
Anganwadi worker	19	1	twice
Rural participants			
Local self-govt representative			as per needed
Medical officer	6	as per needed	once
ICDS supervisor	6	2	twice
Grade-2 JPHN	8	2	>10
Grade-1 JPHN	2	1, as per needed	>10
ASHA-1	12	1	once
ASHA-2	16	1	once
Anganwadi worker	34	1	twice

4.4 Changes in health system functioning due to the pandemic

4.4.1 Themes common to both rural and urban areas

a. Stopping of routine immunization during COVID

The increasing COVID cases in the initial months of 2020 all over the country, lockdown restrictions were brought in across all states. According to the state government order released with the lockdown regulations, the order No./31/F2/2020/ Health, dated 24th March 2020, of the Health and Family Welfare Department, GOI, it was decided to stop the essential services of routine immunization along with the outreach sessions across Kerala. Children who had their immunization due dates during this period did not get them. The stopping of the program thus has caused a general delay in immunization in all panchayats of the state.

“When COVID started, during around March 13th or 14th, sometimes during those days, we had the all over lockdown. When lockdown started, around those days itself, we stopped all the vaccination programs. After that by May end, we restarted the vaccination programs.”

-JPHN of urban panchayat

“The temporary hold was almost two months”

-JPHN of rural panchayat

The wards in a panchayat were classified as containment zones as per the government regulations of COVID control management. When a ward was marked as a containment zone for COVID, the essential services and community movement were restricted. Thus, in containment zones, the community was also instructed not to come to health centers for routine immunization of their children. This system was followed for some months within

the district. This has also affected those who had to take their immunization on those specific days.

“Then when there was containment zone, we were telling them not to come to the FHC for routine immunization during then. They were told to come after the containment zone was called off. Similarly, those who were in quarantine, and those who got positive also were told not to come to the FHC. Those who turned COVID positive or those whose other household members were positive were told to come after that.”

-Medical Officer of urban panchayat

b. COVID work added to regular work exhausted health workers in the community

During the pandemic, when the COVID regulations were released, all health workers were alerted to prepare for its management. The decentralized system has allowed the health system to keep more contact with the community. The field workers that helped in achieving this were the ASHAs, anganwadi workers along with the JPHNs of the community. They had to work for the pandemic related activities, in addition to their regular work. In both urban and rural areas, the ASHAs took note of the COVID positive patients, did contact tracing, also focused on those who returned from Gulf and compiled their travel details. The Gulf returnee's households were visited by health teams to ensure enforcement of quarantine measures. These activities to manage COVID cases and the community occupied the health workers and had to be carried out in addition to their other regular responsibilities from their parent departments.

In both communities, ASHAs and anganwadi workers provided ration and food from community kitchens to the low socio-economic houses and those who needed it, at their doorsteps. It was not easy for them to get the prescriptions from elderly's houses or doctors and provide them their NCD clinic drugs from the pharmacy. Majority of the

ASHAs did not have a vehicle of their own. Even though it was difficult for them in such a time and occupied them till nights, they worked for the cause with the support of the community, and it made them proud and motivated to do more.

“We were told to call and check all the people who were aged 60 and above in our panchayat. We had to call 50 of them provided in a list a day. That was a situation where we could not rest thus. Even though we had COVID, we had to do this work. It is a good work only. But we were keeping many of our things aside and were doing it. Even during nights, we had to call and talk to them.”

- Anganwadi worker of rural panchayat

When the community feared the people who returned from abroad despite their being quarantined in their own houses, ASHAs and JPHNs stepped up to advise them and arranged separate quarantine centers. They worked along with other social groups to manage COVID related requirements and provided services in the community in both urban and rural panchayats. They attended patients even at night, to arrange ambulances and to follow them up in COVID treatment centers.

“In my area itself, there is a colony like area, where there was a boy who came from Gulf. The locals and the community will not allow the boy to have his quarantine in his home within the community. So, like that they created problem. His house didn't have a wall around, so they had issues.” “So, we had to think and get the boy to the quarantine center.” – JPHN of rural panchayat.

In rural panchayats, the ASHAs that I have interviewed, were also involved in burying the bodies of the patients who died due to COVID. Due to the general fear of the public to bury their close one during the lockdown restrictions, such requirements were taken care by ASHAs. The anganwadi workers in the rural areas, were calling and following up on the elderly population in their communities continuously for any issues. The JPHNs later got pre-occupied with COVID vaccination duties which extended to an entire day. The health inspectors were also involved in COVID cell work. The COVID cell work was part

of the facilities that started with 'District COVID War room'. It was a system that was started to closely monitor the COVID situation in each district and community. It was also working to manage the queries of the people during lockdowns, and to guide and provide the community with the services that they need. The existing health system workers as well as other volunteers were appointed for this purpose and its related work in each community. The JHI of the subcenter was thus called for its work. This burdened the JPHN who was managing the subcenter, and the FHC along with the additional COVID related work in the community.

"Then the JHI I had here was posted for the corona cell as deputation. So, I had his work also to be done as extra work." "The thing that troubled me was I had a JHI who was very active. But during corona days, he was sent to COVID cell duty, which put me in trouble. It was a time when I had my personal things at home regarding son's marriage. I had to do the work of the JHI also then. The work related to the people who had to sit for quarantine, etc. It was stressful then." - JPHN of rural panchayat

The ASHAs in the urban panchayat provided food and medications to migrant workers in their panchayats. In houses where ceremonies of wedding and death took place, the ASHA workers provided sanitizers and advised for COVID protocols. They, together with the social groups and community workers and the other health system workers, took up additional responsibilities, in addition to their regular duties. The work itself was hectic and had drained them physically as well as mentally. Moreover, this additional work interfered with their regular duties. The health workers were eager to talk about the work that they did for the community far more than they were to talk about their regular work in their parent departments. They were satisfied and proud of the work they did, regardless of how they made it through during that period.

"When there were certain deaths at certain houses, there will be more number of people. Then we ASHA workers go there and give them the necessary sanitizers. We

also advice the houses where they had weddings during those times, were also able to talk with them regarding the precautions.” – ASHA1 of urban panchayat

4.4.2 Themes emerging only from rural areas

a. Existing infrastructural concerns for immunization during COVID

The theme regarding infrastructural factors came up as per the concerns from the interview with the JPHN of the rural FHC. The immunization room given in the ground floor of the new FHC building had space constraints as it did not have proper ventilation for the Ice-Lined Refrigerators (ILR), as well as for those who came for vaccines. There was insufficient lighting and no provision for a waiting room in the ground floor. It was also noticed that the caregivers with their infants had to walk through the out-patient (OP) waiting area to reach the immunization room. The out-patient waiting area had patients coming for their fever due to infectious causes. The JPHN was concerned about the risk of spread of air-borne infections from the OP area, that includes tuberculosis patients from the community too. The frequent power failures affecting the ILR and the physical space concerns, lead to the decision to shift the immunization program to the older building next to the FHC, which was more spacious. This was advantageous during the COVID period, to conduct safe immunization sessions for children. Since the event of shifting the immunization centre to a more spacious area, happened right before the pandemic got announced, the community was only getting to know regarding the shift, and they were concerned about bringing their children to the space constrained older centre for safe immunization. They have also been experiencing the constant relocation of the immunization centre from the previous building to the ground building, and back to the previous building itself. This has also raised concerns among them as per the queries the JPHN received from the caregivers during then.

“It is a place where current often goes off, and a narrow-spaced area. Even for us it was difficult, as in we cannot use fan in the immunization room, not able to stand. And the power supply in that area was problematic. The ILR was getting off frequently, so we had to change it. When we go home after duty, power was going off. Such power failures were happening. Even if the power comes back, the reconnection was not happening. Then I was trying to change the ILR here and there, then understood it was the problem of the building” – JPHN of rural panchayat.

Out of the four subcentres in the large panchayat, the one which is near to the FHC also had space constraints to conduct immunization sessions. The path to the subcentre entrance was narrow and there was no waiting area for the caregivers to wait during the queue for immunization. For these reasons, the conducting of immunization was stopped in this subcentre a year before COVID. It was also observed that the subcentre is situated beside the new national highway where heavy vehicles traverse long distances. The entrance to the subcentre was not felt safe due to its location with respect to the highway. Thus the caregivers had to come to the FHC for immunization.

Later, the immunization session was shifted to the upper floor of the new FHC building when it got ready. But the JPHN of the centre was still worried for the mothers having to climb two sets of stairs to reach the immunization room that was situated upstairs. It is not easy for all mothers to climb them especially in the initial months post-pregnancy.

The mothers who have had caesarean sections and other complications, found it more difficult to climb all the stairs. There was also the added risk of holding the baby in arms while climbing the stairs. This had also lead to taking the infant for immunization by their grandmothers, and not by the mothers. The JPHN was also concerned of the passage to the stairs through the OP waiting area even in the new building. These developments were some concerns as mentioned by the JPHN regarding the routine immunization when I visited the centre in the rural panchayat.

“...they come for prevention of other diseases. But they have to come through people with other diseases in this hospital. In our hospital, there are people of varied background. There are TB patients coming to our hospital, other than that people with COVID or other cold always come here. It's the patients that get infected come to hospital. It would be good to have a separate section for the immunization which doesn't physically mingle with the regular hospital patients.”

“Some new mothers tell their mothers, that is grandmothers to get their babies for immunization. Those who have underwent caesarean... When we tell them it should be the mothers who should bring the children, this is the reason they give us mostly. That they are not finding it easy to climb the steps, so they are sitting downstairs.” -JPHN of rural panchayat

b. Other government responsibilities of ASHA interfering with health work

In the rural panchayats, the ASHAs were closer to the community, and they get involved in more social activities also. This theme emerged from the analysis of the interviews of the ASHAs and anganwadi workers. Many of the ASHA workers and others are or had been official community leaders in the panchayat. This was not a criterion that was considered during participant selection. It was known during the interview with them, that they had worked as panchayat presidents, and panchayat ward members. They stood as candidates in elections in the community to win these positions. At the same time, they were worried about not getting a fixed monthly income. They were worried about not getting an income for the numerous assigned tasks they do for the health system. It was also perceived that these ASHAs who are women trying to provide for their entire family, aspired to do work other than of ASHAs for a pay. They themselves mentioned it is not possible for them to go for those extra work that they needed to do with the increase in workload from the health system.

ASHAs and anganwadi workers who are involved and in close contacts with the community are empowered to take up leadership positions. A handful of them are

respected and seen as powerful due to their political affiliations also. The political leaders notice the ASHAs who work close to the community, and they are influenced to represent their organizations in the community. These power positions gained with the trust of the community, are useful to influence them for health services. It can also influence these health workers to focus on works in the community, other than the regular work assigned to them. This shift of focus from the regular health works, along with the burdened COVID works may have brought disruptions in their regular follow-up and other health related work.

“It was the ASHA workers that worked more during that time. Because of that political people are also trying to control these ASHA workers. They do win at times for elections. So, it is understandable of their involvement in their work. So it is like if they are coming as independent candidates here, they will win. If they are being together with others, they are also winning. So, the political parties try to take advantage of the ASHA workers all, by being with them.”

- Rural Panchayat President

At the same time, they were distressed when given more work by the health system. They work in the NCD clinics thrice a week and taking sputum from houses to TB center, without giving them the incentives or a fixed income as is paid to other health workers such as JPHNs, JHI and medical officers. The social groups that were formed for community work during the COVID restrictions, were given funds to help them do their work. But the ASHAs struggled for mobility while providing their services to the community. This was a concern among the ASHAs even though all the social groups were working together in the community.

4.4.3 Themes emerging only from urban areas

The themes emerged from the urban panchayat, for the changes in the health system functioning that have influenced routine immunization during the pandemic are detailed in the following paragraphs.

a. Disruption of routine meetings and work

The regular work during the pandemic was further disrupted when the health workers got COVID, and took time to return to their duties. When the number of COVID cases were rising, the health workers were working and the COVID restrictions were announced. The ASHAs were afraid to work during the pandemic because they were worried that they would themselves contract the disease. Not only that, they were concerned about the safety of their own household members when they return home after COVID work. They were not using protective kits during their community work during this initial phase. Not all of them had provisions of a separate room for quarantine within their house. One of the ASHAs from the urban panchayat, got COVID during her work. Her son was also affected. As they didn't have a space for quarantine in their house, she had to stay away from her house in a quarantine centre. This was traumatic for her, as it was not acceptable for her to leave her daughter back at home. It was not only COVID that affected her, but the mental trauma of separation and loneliness during the time in the quarantine centre. She had not fully recovered from the post COVID difficulties of breathing difficulty on physical work, sleeplessness and mental anxiety that she went through after she came home, even after receiving medications and counselling for the same. It was difficult for the ASHA to follow the routine and undertake COVID work in the community during this period.

"I couldn't sleep for 13 continuous days. I was full time standing in the windows for all 10 days. I couldn't even sleep in the day time. I was standing in the window side and looking outside, there was an eagle flying and listening to its sound. That was all I could do. Those days I didn't have these big phones, I had the small one.

Son also was there next to my room with his phone. I had my headaches and fever, and calls were coming continuously asking how I am, if all are good. Not even for one minute I couldn't keep my phone down. I was not able to check my phone, it was continuous calling. Then doctor told me you can either keep your phone in silence or can switch off the phone. But I couldn't sleep at all, if at all I fell asleep in the morning for half an hour, I dream like someone is coming to capture me, then I fall into a pit. And then I get awoken quickly. So then the headache was not getting relieved. Next day morning the head ache will have shifted to the other side of head. Even after getting home, it took me 3 days to sleep properly. So I called Dr Z and told her that I can't sleep. From 4th day onwards I was simply sitting and crying for no reason. But I don't know still why I cried like that then, may be my mental troubles. I was crying, I wanted to see people, wanted to see the usual places around me, was also tensed all the time. Tensed about if my daughter will get the disease. Daughter did come near me, so no idea if she will also get it. We have only heard the word of mouths that if we sit near a COVID person or if we kiss a person you will get COVID, It was my daughter who wiped me clean during my fever, and kissed me a lot before I went. So I believed that definitely my daughter will also get the disease. So that tension was inside me all the time. If my daughter also gets this disease, even she will be locked like this. She is of right age, and no one else to look after if she gets so. All those were may had been thoughts then, But she didn't have anything then. On 7th day, my daughter and her father were all checked, they didn't have it. Even then when I came to know that also, I was crying like anything. Then called the mental health for help. They all called me and talked to me many things. But for me nothing was entering me in my head. I was only able to sleep on 14th day. Those 13 days, I am sure no one will believe that I couldn't even blink my eyes. After that event, I have forgetfulness, I still have it, I still forget things at times." "I get my breathing difficulty. I had shaking for 3 months after my COVID incident." - ASHA2 of urban panchayat.

The LSGI representatives of the urban panchayat noted the increase in COVID deaths along with an increase in the number of people coming from other regions into the community following the announcement of the pandemic and the newly imposed restrictions. The focus on the pandemic had called a halt to the regular meetings. They

used to conduct monthly subcentre meetings and meetings among all workers regularly to manage the coordination within the community. With the increased work load during the pandemic, these regular meetings could not be conducted for almost two years. The health workers being involved in COVID work, reaching all parts of the large panchayat, had less time for follow up on their regular responsibilities. This disruption in the routine follow ups and meetings among workers for two years emerged as a theme from the urban panchayat, as they were running them regularly before COVID.

“The egos that rise among JHI, JPHN, ASHA workers all are dealt by themselves in this subcentre meetings.” - Urban Panchayat Health Chairperson

b. Casualties among health workers not replaced

Replacing positions of expired health workers may need to be taken care of immediately. As they were doing regular work in a community, and this task of appointing persons in place of those expired has to be done as soon as possible. Especially during COVID, the area and the work allotted to an expired ASHA worker was split among two other ASHAs. This was also an additional work for the remaining health workers, who may also have been distressed by the death of a co-worker.

“One among us passed away. So currently we are two. A third person never came yet. So, the area under that third person is also covered by us two.”

- ASHA1 of urban panchayat

The immunization sessions conducted in FHCs is supervised by medical officers along with lady health inspector (LHI). The LHI provides counselling sessions to the caregivers regarding routine immunization, as part of educating them. The JPHNs providing the vaccines can only convey messages related to the process. The caregivers may not therefore realise the importance of immunization from centres where counselling is not conducted. The LHIs were mostly located in FHCs with more number of JPHNs. This

was not so in the urban panchayat, and they didn't have a LHI for the FHC. This absence of posting a health worker, can affect the awareness sessions that have to be conducted for the caregivers, to uphold knowledge of the importance of vaccines and immunization consistently in the community.

“In our PHC, there is no LHI currently. The charge has been given to the main centers JPHN. It is not possible in such situations to give such talks.” ... “In the other PHC there are 3 LHI, LHS post. So, they have sufficient staff there. They have 11 subcenters there. They have sufficient JPHNs. So, in such places only we can effectively have such counselling talks.” ... “It is difficult for us to tell them things in between the vaccination process. We can only tell them about the next date, what happens after vaccination, how to take care of the vaccine site etc.”
- JPHN from urban panchayat

c. Crowd management with restricted outreach sessions

With COVID pandemic, in order to reduce the risk of exposure, the number of immunization centres in the panchayat were reduced. It was conducted in the FHC alone, when immunization was restarted after it was stopped in March 2020. Outreach immunizations that are usually conducted in anganwadi centres and schools were discontinued during the two years of the pandemic. The monthly once session in subcentre was also discontinued. The reduced number of immunization centres along with stopping the sessions due to COVID regulations, had increased the number of children in a community who had to get their immunizations from available centres.

“We did not conduct outreach sessions, as when we were conducting it regularly, as they had to be conducted in areas very much inside and small areas. Since there was a chance of crowding in such events, we maximum avoided outreach sessions and was conducting them in FHC.” - Medical Officer, urban panchayat

Crowding was thus expected in the main FHC, where immunization was planned. This was managed with plans laid out by the govt orders, and as per community's

requirements. The urban FHC planned to split the weekly RI days into two days a week, with specific timing given to the population from each ward. All the JPHNs from the subcentres of the panchayat also joined in to facilitate the sessions in the FHC to manage the crowd. All health workers and the hospital staff together managed the immunization sessions, to avoid the risk of COVID spread.

This has helped the caregivers to come and receive their infant's vaccine shots safely. The initial crowding even though caused apprehensions among them, they slowly came with the trust in the system. They could avail the vaccines and leave the centre, without taking much time. The caregivers not very far from the centres, were able to get the vaccines on time. When the immunization was started in the subcentres later, the community felt more at ease to receive the immunizations in the urban panchayat. As part of COVID lockdown restrictions, most employment did not need physical presence, and the skilled labourers were not going for work. They could take their children for immunization without the added responsibilities that come from their regular jobs. The lockdown restrictions thus enabled the caregivers to take their infants for immunization on time, for those who did not require to be physically present for their employment.

Along with reducing the outreach immunization, house visits could not be conducted during this time. This was decided again to reduce the risk of exposure of COVID to both caregivers and the health workers. The caregivers were contacted through phone, and the information regarding immunization days were conveyed. There was a reduction in the number of contacts with caregivers during the pandemic by reducing outreach sessions and the routine house visits.

4.5 Factors that affected delivery of immunisation services

4.5.1 Themes emerging from both rural and urban areas

a. Religious sentiments coming in the way of immunization

There are communities who are not interested to immunize their children, due to their religious sentiments. In the urban area, the ASHAs know about certain Muslim populations, who are not given to immunizing their children correctly. Their religious leader takes initiative in keeping immunization sessions among them. The ASHA was of the opinion that as these sessions are randomly conducted, and that the children in these communities receive vaccines in the similar manner. They may not be receiving them in correct schedule of immunization. However, the number of children affected by this condition could not be discerned from my participants. Another incident mentioned by the JPHN, along with the medical officer, had to convince and warn a caregiver mother coming from a Christian community, to get her infant to come to the centre for immunization. This happened during COVID, and was noticed when they went to houses where caregivers have not received immunization for their infants. With the restrictions during COVID, and the then existing reasons such as getting affected with COVID, they were excusing themselves from the process, without an actual cause. They believe that any consequences experienced by absence of immunization could be managed with prayers.

“They were educated. But I think they were more orthodox in their religion, they are Christians. They didn’t give much importance to vaccination, it could be that they must have put COVID as an excuse to delay their vaccinations. They take so that it is only the matter of being in prayers, that they will be protected from such illness.” “Then there are people who doesn’t take also, especially the Muslims who are in the Jama groups,” - JPHN from urban panchayat

In the rural panchayat, there are stories of religious communities, successfully getting the immunizations on time, as well as of vaccine hesitancy among some. The area where one of the anganwadi worker and an ASHA participant worked, was a Muslim majority

community, where all were taking in correct times, and that they have tried to complete the vaccine schedule for their children during COVID. But it was not so, years before. The health system had to work on to bring them to get immunized over the years. At the same time, there are other areas in the community, where they still need motivation to get in the immunization process.

“When we came as ASHAs then there were many Muslim families who wouldn’t let their children get vaccinated. Now that the system has developed and come up so, there is none who has not taken vaccination.” - ASHA2 from rural panchayat.

*“... They are not interested in immunization. My daughter do not need the immunisations is what they told us. They have also written it down to us.”
– JPHN from rural panchayat*

4.5.2. Themes emerging from rural areas

a. Gender blind nature of the system’s functioning making it difficult for women workers

Women being the majority among the health workers, are still a long way to meet their personal needs during work. The ASHAs consist of women across ages from 30 to 60. The ASHAs of the panchayats had to walk long distances in the community during their work and especially during COVID, without proper facility to meet their toilet and menstrual requirements. Women going on menopause and those in late 50s who still attempt to do the work, also had physical exhaustion during long hours of work. They were the ones who had to visit houses during COVID for needs of COVID and NCD drugs, food, arranging ambulance for COVID patients.

“There was an ASHA chechi who was not well then. She got unwell when she was walking, and got her periods. And then sir gave Rs1000 from his own pockets to her... For me I was able to do things, as I was known to people, and was able to reach for things. It may not be same for all.” – ASHA 2 of rural panchayat

“It will take an hour or so then to get in the house after coming from work. Washing all the clothes, the smaller clothes, bleaching them, and then bathing and cleaning themselves. They have to keep clothes as nappy when we had to go for longer hours of work outside, they have to be cleaned. Like that there are many hardships, and I had many such difficulties myself”
- ASHA 1 of rural panchayat.

ASHAs and JPHNs have had to come from a longer distance to reach their work centres every day. It was not possible for them to leave or stay away from home, for their roles in the family, regardless of whether or not the panchayat provides stay for the workers near to work during COVID. Bedridden and cancer affected spouses and other family members were also to be taken care by them after their work in the community. The fear of getting COVID while working, at the same time, recognizing their need in the community, along for an income for themselves drives these ASHAs to work.. However, the system works in a gender blind way, overlooking these gendered responsibilities that the women health workers also shoulder.

“There are many ASHAs who live with that income alone. In these situations, there are ASHAs who have bedridden husbands with cancer in their house. It was not easy to leave their houses for work, at the same time it was not easy for them to go to other houses as part of work.” ... “During the COVID days, it was not possible to take a leave or an off day. It was during those days, our people needed us the most.” - ASHA1 of rural panchayath.

The ASHAs and anganwadi workers are often scolded by men of families who are not interested to vaccinate their children, when they visit their house as part of routine work. These family members, are educated and are employed, according to them. As per the ASHA and anganwadi worker who participated, this has distressed them many times. This may be because the health workers being women seem weaker and are looked upon down and easier to abuse by the men. The women of those families talking to the ASHAs

are not being mentioned while they share this experience, even though they know that the mothers are educated beyond school and are financially well off, clearly indicating the gendered nature of the experience.

b. Perception of health workers about women's reticence to cause pain to the infants

This theme emerged from the rural panchayat, can add to the burden of partially immunized children. It holds its relevance, as it is ongoing in different areas, however the awareness and motivation are provided by the health systems. As the house visiting were started by the anganwadi workers during COVID, the later immunizations of a child were not taken as important as the initial vaccines.

"There are people who come from inside. Not one or two, more than that. There are some people who have that mindset. Because, during that time some people do face difficulties when they get their babies vaccinated. When they see it, they do get demotivated."

"There are people who do say "Oh, we have taken this much, now it may not be needed", when we ask about the 3rd dose vaccines. There are people who says that, we are not taking them. Recently, when I went to a house, there the grandmother of the child was like "I am not taking the rest of the vaccines, I have taken this many. That would be enough, no more is required!"

- Anganwadi worker from rural panchayat

c. Existing caste based lack of acceptance of immunization exacerbated during COVID

In the rural community, socially backward groups who do not immunize their children exist. The health system workers label them as being from lower caste, and report that it is difficult for them to approach such groups regarding health work. It will require more involvement, and people from their communities who understands them, to get the health messages and services available and accessible to them.

“They themselves say that they are DHRM people. They do not take vaccines. One person in that group has an elder daughter, who is from his first wife. He has not given vaccines for that child. He then left her and married another, with a second child, For that child also, he has not given immunizations.”

- JPHN from rural panchayat

4.6 Functioning of the immunisation program during pandemic

4.6.1 Themes emerging from both rural and urban areas

a. Health workers strengthened communication with caregivers during COVID

The health workers were not able to conduct house visits due to COVID risk then.

However, they utilised the available communication channels and tried to keep active communication with the caregivers. They had instructions to and were calling all the beneficiaries to inform the immunization sessions. They were contacting the caregivers through phone and also created groups in “WhatsApp” social medium, which is available only in smart phones. Such groups were created with the purpose of reaching maximum people in the community and informing them regarding events and information during a crisis.

“They didn’t come on the vaccine date, that they were supposed to come. So I rang them and asked. Then only I am coming to know that they don’t have money to give for auto. They were able to get things for their survival then. They didn’t have to live in hunger as there were food and provisions made available then.”

- ASHA2 from rural panchayat

This communication was common in both urban and rural communities. This also helped the ASHAs to conduct their work and maintain or even strengthen the community contacts in spite of COVID related work. But it couldn’t be gathered, whether those who do not have such services were left out completely, or were contacted otherwise.

“We have created a group with all these children and beneficiaries here. So for doubts of every one we answer there. Along with that when we visit their houses also, they ask us doubts or anything needed and tell them.”

– Anganwadi workers from rural panchayat

The possibility of an entire population having a smartphone and the internet service, and considering to use them, still needs to be looked upon, as it can vary with communities with respect to demography and socio-economic backgrounds. It is also the responsibility of the health system to try to uniformly keep contact and reach the people in their communities regardless of their access to technologies, especially during such crisis.

b. Shortage and risk involved in vitamin A supply

Along with the shortage in Vitamin A, there was a concern about the risk involved in its oral administration during COVID. As it is not a disposable mechanism of spoons or means that is being currently used, the oral contact with the spoon/medicine cup, when given to children concerned the health system. But this was later met by giving them during house visits in the rural panchayat.

“We cannot give the syrup in a spoon to all the children especially during COVID. It is us who gives the Vitamin. We cannot give the syrup in the same spoon even if cleaned after one child during COVID. So for that there was an increased demand and it took time for it.” - ASHA2 from rural panchayat.

Similar shortage was also mentioned in the urban panchayat, where I first interviewed. But my urban participants did not mention the risk involved, in its delivery during COVID. Thus the urban panchayat has not come under focus in this theme.

4.6.2 Themes emerging only from rural areas

a. Planned immunization sessions for selected communities

On restarting immunization during COVID, there was an increased number of children who came for their pending vaccines. This was foreseen and it was planned to provide specific time for the population from each ward. As it was only restarted in one centre, the FHC in the entire panchayat, it had to be done so to manage the crowd.

Conducting the regular outreach session was a risk for the health workers. At a time when the crowd was reducing and outreach sessions were planned to start slowly in limited centres. In the following year, the Muslim population's Ramzan fasting was taken into consideration in the area where they were majority. The ASHAs working in their community know that they do not receive the vaccines during this month. Over the years, the health workers were able to influence most of the Muslims in a particular ward, and that they do not compel them during this month of fasting for immunization. So during the Ramzan month during COVID, the immunization session was conducted in the ward next to the Muslim's community for other beneficiaries. The health workers have managed to motivate the Muslim communities of certain wards to take routine immunization for their children over years. This planned conducting of immunization session can convey a message of confidence from the health system of the Muslim communities for further cooperation from them.

“And also, it is Muslim's fasting now, and it is mostly Muslim's area, we were considering to move it from there. We should also see in that sense also. So, since it is fasting this month, people are not willing to take vaccination for this month. In that centre, minimum 100 people used to come for NCD. Day before yesterday I had duty there, and only 10 of them came. So we planned to shift the centre thus for RI.” - ASHA 2 from rural panchayat.

COVID vaccination was conducted almost all days in a week in the health centres. The health system did consider avoiding COVID vaccinations on Wednesdays when routine immunization is conducted. It was so planned to reduce the crowd and the risk of COVID

infection. But the caregivers of rural areas had to take their infants, to the main centre mostly, when the routine anganwadi and subcentre sessions were not conducted in the same year. It was also a time, when the health workers also reduced house visits regarding immunization.

“Then we kept a control, like gave a time for each ward. Then we dint keep COVID vaccination on Wednesdays, so that rush was kept off”

- ASHA 2 from rural panchayat

b. Limited community support for ASHA/JPHN/Anganwadi worker

All the health workers tried to coordinate among themselves during work. It may not be always noticed by all workers, but few of them try to conduct certain work which made it easier for others. An ASHA and a JPHN mentioned the name of another JPHN who was being helpful for other ASHAs. The JPHN taught the ASHAs in the community to conduct NCD clinics, when the community was criticizing for not doing them. She also helped the ASHAs in coordinating providing medicines through ASHAs as part of COVID work. They also mentioned specifically as to how the JPHN travelled an hour daily to health centre for work.

Among the ASHAs, those who have their own two-wheelers help those without, while engaged in COVID related work. As public transportation was limited during initial lock down times, ASHAs had difficulty in reaching places by walking all the time. The panchayat being mentioned as the largest among the nearby panchayats, was not observed to be of help for the women health workers. As compared to the urban panchayat, the difficulties during work was not noticed by the authorities in the rural panchayat. But the community supports them as leaders within the community are extremely supportive of the health workers. However, this support was not available to the women health workers during the pandemic works.

“For me I have a vehicle, but there are ASHA workers who doesn’t have vehicles to reach places like that. There are ASHAs who are old. 50 and 55 years of age ASHA workers are there here. There are such ASHAs who are not so well health wise. But they never showed any restraint in their works. However kilometres they have to walk, they walked and collected the medicines to give it to the houses”

- ASHA 2 from rural panchayat

4.6.3 Themes emerging only from urban areas

a. Local self-government as a support mechanism for health system workers

The panchayat supports the health system in carrying forward their work in the community. During COVID, they were not only supporting ASHAs mentally, when they got distressed but tried to provide the system the help needed to carry out their work.

“When it came second time, and I had my mental issues, even Panchayat member had to call me, for a happening.... I even went to the Panchayat member regarding it, that only after his instructions I uploaded the name, phone number and address details of the person who got COVID affected in the group. And he also consoled me like that I don’t have to worry about it.”

– ASHA2 from urban panchayat

The panchayat followed the system of keeping regular meetings in the health centers and coordinating the different tasks of all the health workers before COVID. This has helped in the health workers complete their tasks, by teaming them up in all wards of the panchayat, even during the lockdown. This has also created a bond among all the health workers. The panchayat thus has made themselves available to the health system. They are approached directly by the health workers including the ASHAs and the Anganwadi workers. Also, the ASHAs, JPHNs and JHIs share among themselves their concerns during work, keeping everyone together. This is an important factor, that motivated them to conduct the work for the benefit of the community

b. Local self-government support for arranging transport for JPHN

With limited public transportation available during the restrictions, for the health workers residing distant from the health centers, the urban panchayat arranged transportation for the health workers to reach work. This helped the health workers to reach their work spots without the added concern regarding their individual commute. The health workers such as the JPHNs and the medical officer were very satisfied with this support. It motivated them as they were reaching work together in the given transportation and provided a space for them to interact among those JPHNs of different subcenters. The health system was also given support by arranging transportation for field visits during COVID. This act of supporting the health workers, and the motivation building among them during a distressed period is also an important factor enabling to work for the community.

“For those who were staying within the panchayat, we had vehicles arranged for us to come and go. It was since there since the first days. Even for those who were from far, they try to reach a point which is maximum possible, then our vehicle will collect them from those points. And was able to drop us back after work also. The Panchayat arranged the vehicle and the driver for it.”

- JPHN from urban panchayat.

4.7 Summary

The barriers thus identified from the analysis of the study, shows that there are factors from both the caregivers and the health system along with local self-government that has influenced the routine immunization program in both the communities during COVID. When the pandemic started, the health system had actively taken action, trying to keep the good guard for the community. Resolving the existing problems of the health system could have further reduced the impact of COVID regulations on the essential service of routine immunization. At the same time, the communities had also tried to take active decisions to reach the health beneficiaries in their possible way.

The perspectives developed during the pandemic added along with the existing systemic burdens had acted as barriers for the program. It reminds us that we need to correct the barriers that can tamper the work done so far to reduce the mortality of under five children, and the incidence of vaccine preventable diseases. The study results also remind us the importance of gender sensitization in health systems according to each cultural contexts and the consequences without it. The study essentially reminds us that the development of the health system programs has to be ensured along with constantly reminding the community regarding its public health importance and value of immunisation for the community as a whole.

CHAPTER- 5

DISCUSSION AND CONCLUSION

5.1 Introduction

The themes identified from the study indicative of barriers to timely routine immunization for children, were used to understand what measures can be taken to overcome it. In this chapter, I have attempted to describe the interventions, by applying framework analysis to the themes across caregivers and health system workers of both panchayats. After identifying the convergences and divergences across the perceptions of caregivers and health system workers of both panchayats, framework analysis enabled the identification of mitigating steps can be possibly taken to overcome them.

5.2 Findings and implications from framework analysis

The themes that come as common for rural and urban, only for rural and only for urban are briefly described here.

5.2.1 Gaps in maximizing reach

5.2.1.1 Themes common in rural and urban

a. Social and religious inhibitions for immunization

The religious and the social groups who are not interested in routine immunization, add to the burden of unintentional delays.

5.2.1.2 Themes common only to rural areas

a. Misinformation and less sensitization during the pandemic

When a new vaccine was introduced for COVID using emergency protocols during the on-going pandemic, there were many kinds of doubts for the caregivers. Since much focus was given on the COVID vaccine, information regarding other vaccines and COVID vaccines may have got mixed up among caregivers.

The caregivers had delayed their infant's immunization by collating information about COVID vaccines with routine immunisation. The information that COVID vaccine only be taken after 3 months in case one gets COVID positive, was taken into account while receiving routine immunization for their children.

Along with the collating of information on COVID vaccination with routine immunisation, there also exists a lack of urgency regarding the need for timely immunization. This was noticed in the caregivers' interviews. They feel they have to do it for their children, as all others are following it. But without understanding the need and its importance. This has created a knowledge gap among the caregivers of the rural panchayat due to less sensitization.

b. Social interactions transforming immunization as a social norm among rural communities near health centres and shortage of health workers to counselling them

The mothers and grandmothers take their infants for immunization, discussing with others of similar age groups in their neighbourhood. This contributes to facilitating the uptake of routine immunization and also the maintenance of awareness levels.

But to keep it more uniform and ensured, they also need to be constantly provided with complete information. It is required for new mothers who bring their children to health centres. Provision of counselling sessions by LHIs were part of the health system's mode of delivery prior to the pandemic. This was not uniformly seen in the panchayats. The FHC does not have an LHI post, for this purpose, and this affects in providing knowledge regarding immunization to new parents. It is difficult for the existing JPHNs in the system to provide such information when they are carrying out the immunization for the infants.

c. Communication through social media groups among health workers and beneficiaries in communities

This theme emerged as part of the steps that the health system workers attempted to communicate with their beneficiaries in the community. During the lockdown phases, the health workers communicated utilising the existing technologies like WhatsApp available in the hands of the majority.

d. Striving ASHAs in rural communities

As mentioned in 4.3.2. b, the ASHAs and the anganwadi workers struggled to bring attention to their limited income and the selfless work in the community. They stood for elections and consider other additional employment options. It is important to take note of this, as this may affect their full attention towards the work given to them and in turn affecting the quality of health programmes for various other interventions that are dependent on them.

e. Gender blind health system and community workers physical distress

The hardship experienced by the women health workers during their work in communities also comes up as a gap in maximizing work to increase reach. This may be consistently seen across all communities. The quality of the various work they carry out for the community could get better, by motivating them and meeting their basic needs for bodily functions and menstrual needs.

5.2.1.3 Themes common only to urban areas

a. Limited information provided for migrant workers

Non-availability of vaccination book in the language understandable to the migrant workers staying in the community, may have contributed to their lack of understanding of the vaccination schedules.. In addition, the mothers need to plan for immunisation as they may need the support of their spouses (who may be working) to ensure timely immunisation.

5.2.2 Gaps in program management

5.2.2.1 Themes common to rural and urban areas

a. Cost barriers of routine immunization

The different cost barriers related to routine immunization can influence its uptake, especially during times of a crisis. Being an essential service, the cost barriers need to be minimised for any caregiver. But during the pandemic, along with restrictions in transportation, lack of employment also acted as a barrier. When transportation can be expensive to reach immunization centres that are distant, cost becomes a barrier to immunization, particularly for the poor to immunize their children.

5.2.2.2 Themes only in rural areas

a. Space constrained, inconvenient infrastructure for immunization centres.

Ensuring mother and child friendly immunization centres is one of the strategies to facilitate routine immunization in a community. The space constraints in the health centres of the panchayat and the constant change in the immunization centres have concerned the caregivers in approaching the health centre during and before the pandemic. The mothers find it difficult to climb the stairs with their babies/infants to attend the immunization session kept upstairs the centre. This has already kept the mothers aside from the immunization sessions, when the baby is taken by grandmother for the same. These would have added to the existing burdens faced by the community.

5.2.2.3 Themes only in urban areas

a. Routine community health work and related follow up disrupted

The disrupted follow up of routine work through regular meetings had affected the chance for the health workers to address their difficulties during work. As it took nearly 2 years for regular work to resume as before, it was a long period for the health workers to address such issues of the community and their work.

b. Limited number of immunization centres and limited doctor-patient interaction

The limited interaction between the caregiver and the doctor during the immunization sessions, not only affected the its sensitization, but also the other programs attached along with mother and child health. The limited number of centres that caused an increase in the beneficiaries in the individual centre available, put the health workers to focus on program management with care along with COVID safe protocols. This in turn minimized the only interaction that the caregivers could get.

5.2.3 Gaps in mobilizing people

5.2.3.1 Themes common to rural and urban areas

a. Fear of COVID among both caregivers and health workers

The caregivers as well as the health workers were equally afraid of getting infected with COVID in the health centre. It gets even more concerning, when healthy public approaches the centre. This fear which was not recognized by the health system initially, which may have failed in mobilizing people for timely immunizing their infants. The health system was also afraid that a crowding had the possibility to pave the way to an outbreak.

b. Limitations of mobilization during COVID

As mentioned in 4.2.1.c, mobilization restrictions affected the caregivers as well as the health system workers. It was not easy for both, to approach to health centres for their immunization, during such days.

5.2.3.2 Themes common only in rural areas

a. Accessibility issues for poor

The accessibility to immunization centres among the rural poor was made more difficult during the pandemic with limited functional centres. The centres made available were

also distant and costly for them to access, without routine public transportation. This has affected children from such background to get their immunizations on time.

5.3 Strengths and Limitations

5.3.1 Strengths

- a. This study attempted through the use of qualitative methodology, using ground theory approach to explore newer perspectives about routine immunization during the pandemic situation. The framework analysis approach used in the discussion to identify the gaps in understanding across caregivers and health care providers has led identification of recommendations for each of the identified barriers.
- b. Studying both the supply and the beneficiary side of the community has given an overall picture of the barriers that the community experienced as well as the existing barriers that could add to the burden of unimmunized and partially immunized children.
- c. The community and the participants were not familiar to the investigator before this study, thus the bias for prioritizing any of the barrier has been minimum.

5.3.2 Limitations

- a. Since there is no existing system of identifying the duration of the delay in vaccination, the caregiver participants were identified from the staff, and later confirmed using dates from their vaccination card. This may not have helped in getting the caregiver participants with extreme experiences of barriers.
- b. This study has attempted only few communities in the district to be included in the study. With the demographical and socioeconomic variations in the systems in each

community, there can be various other factors that can influence the immunization program. Hence the identified barriers cannot be generalized to the entire district.

5.4 Conclusions

COVID 19 and the related work has largely been the barrier to timely routine immunization. Fear of COVID and restrictions in public transportation have prevented caregivers from approaching the health system. But the health system did not recognize that the parents perceived the health system's immunization centres as a place of risk. The community support that the health system received varied across rural and urban panchayats and this too has also influenced the program.

- a. The availability of few immunization centers alone upon restarting had increased crowding in the health centers. This caused fear among the caregivers to approach them. In situations where they had to be stopped, implementing more number of centers/facilities on restarting the program, along with catchup campaigns as soon as possible could have helped to avoid partial immunization, delayed vaccination for the children in the communities.
- b. There was burdening of the health system due to COVID related work. This has affected routine work and outreach to the community. Deploying existing health workers for emergency situations, for work other than their regular work, can always affect the routine system. Building enough capacity in the health system to manage outbreaks that takes longer durations, will be a helpful measure to see through the routine community health services are not affected.
- c. The health system's interaction with the caregivers were affected, continuing for almost two years. This may have not only weakened the caregiver's awareness of importance of timely immunization, but other mother and child services. Utilization

of currently available and in use, cheaper technological service as communication channels, after standardization can strengthen the health system's contact with communities. This can be considered to get developed from systems in communities itself, to get started with it, at the same time ensuring none in the community is left out.

- d. The existing barriers in communities has added to the burden of COVID related barriers. Focusing on consistently educating and providing awareness of the immunization importance will reflect on such populations that have their own views about immunization.

5.5 Policy Implications

Through the gaps identified through framework analysis, the steps that can be taken to mitigate them has been discussed under this session.

5.5.1 To maximize the reach of the program and to extend coverage

- a. **Strengthening education and awareness efforts on the importance of routine immunization to community.** The provision of educating the community on the importance of immunizing children, is still valued and needs to be considered and made available consistently across all health centres of a community. If the caregivers being sensitized from the days of mother's antenatal care they would also be motivated regarding their baby's care. Monthly counselling and educational messages regarding immunizations can be focused on communities that resist immunization. Constant awareness can slowly motivate them to take up the vaccines, when it gets perceived as a social norm. This also prevents misinformation and careless behaviour among people. Its importance also lies during a crisis such as the COVID pandemic, that the people understand its need and a right for their children.

- b. **Considering inclusion of languages understandable for migrant workers, while providing vaccination books/card** - Providing them vaccination cards from the health centres in a language, that is understandable can guide them with the information for their infant's health even when they shift their place to another State without the notice of the health system. This can be initiated when they register for antenatal itself.
- c. **Strengthening and improving communication channels of ASHAs and anganwadi workers with caregivers utilizing available technologies.** Better communication channels can help to keep the community in closer contact and to provide them better services. This can bring the mothers and caregivers in the community closer and making them closer to the health workers. With this measure, the available means of communication can be made more regularized and to reach all in a society. Also constant knowledge through such regulated media also prevents misinformation among people. The community will also be able to contact and correct their misgivings with the health workers during other focused interventions of outbreaks. Training and educating ASHAs regarding the importance and the use of immunizations, and on communication strategies, to pass it to the community can also help with this.
- d. **Providing sessions of gender health education and its sensitization** to the women majority community health workers and the community leaders mostly the men, help them to consider and address the need of different amenities required for the women health workers in the community. This can help and motivate the ASHAs and anganwadi workers in their services provided to the community. Through them, the messages can reach the communities as well.

5.5.2 In program management

- a. **Capacity building of existing workforce for counselling sessions.** The counselling for the new mothers, caregivers taking children for immunization in the health centres were not available in the health centres in the communities. Adequate number of health workers from the community along with their posting for the requirement of counselling can be worked, for reaching to all social groups in a rural community.
- b. **Provision of mobile health vehicles to provide vaccine in limited accessibility areas, with planning during mobility restricted events.** The outreach sessions can be utilized to provide vaccines to limited accessible areas, during events like the pandemic. Incidents of restricting them can be met later by catchup campaigns.
- c. **Ensuring safe immunization centers separated from regular out-patient areas, with disable friendly norms.** Provision of safe immunization centres in community hospitals/health centres, separated from the regular out-patient areas is a measure to ensure immunization for all. An air-borne disease outbreak can render such centres risky for the beneficiaries. Along with safety, disable-friendly norms can also be ensured, as it may not be convenient for all post-pregnant mothers to climb stairs, or even to carry their baby while climbing the stairs.
- d. **Provision of availability of govt vaccines in private facilities and providing informed choices to expecting parents regarding vaccine availability options from antenatal registration and care.** Providing informed choices for expecting parents during their antenatal period regarding vaccine costs and its availability in private centres, and improving accessibility for the service also needs to be thought off.
- e. **Provision for using vaccination card in caregiver's workplaces to excuse from work, to reconsider the policies of income reduction with leave.** A day off in

workplaces of parents for their infant's immunization using vaccination card, can act as a motivating factor as well as for involvement of both parents in the cause. This can also promote the value of immunization, and for better interaction time with the doctors. As the provision of an assured time off from work, using vaccination cards, can also ease parents for a better family time from work for the day.

- f. **Communication on routine immunization importance to the public can be given out via mass communication strategies.** Posters on its importance can be spread and sensitized through newspapers, television, radio, and in pamphlets to houses where such facilities are limited. Consistent communication on its importance evokes an active attitude towards routine immunization during a crisis.
- g. Ensuring a regular fixed income and benefits for ASHA, through a single payment mode. The incentives for the work done for health system and panchayat can be given through a combined single portal. This helps in motivating them for their choice to work as community health workers. At the same time, they can also be provided with the information and awareness of their professional aspects that already exists as policies among ASHAs.

5.5.3 Community mobilization

- a. **Planning for more immunization providing facilities, during crisis events that leads to stopping the program, along with catchup campaigns.** Fear among caregivers towards outbreaks, can be managed by arranging more centres that are spread out in the panchayat on specified days in a week, with respect to ability of parents to commute within the area and the number of infants who need immunization. This can be done especially after events when it has led to stop in the sessions. Providing proper information regarding centres and functioning time to the

community via social groups that already exists for COVID work, may reduce the general crowding and thus reduce the fear among all. Advising caregivers to bring own cloth covers to wrap their infants, during immunization session can also help to reduce fear. Providing ample protective measures for the health workers during the session will give them confidence to manage the crowd.

- b. Posting health workers, JPHNs in the health centres, who reside in or near the rural and urban communities can to an extent, help them work efficiently during a crisis. It will be easier for the health workers to commute for work, and be more focused. It also adds the advantage of a health worker, coming from the community and who understands them. ASHAs and anganwadi workers are taken from the community itself, but there are times when they have to change their stay/home, sometimes to distant places. Along with this, a transportation can be arranged for the health workers to reach the health centres, during the times with limited transportation.
- c. Keeping mobile health vehicles to provide immunization to areas distant and with accessible barriers can help those communities to overcome this issue. This also incentivise them with the importance of immunization, also their confidence with the system through including them.

5.6 Scope for further research

- a. Since there was no existing system to identify the duration of delay in vaccinations, defining delay in vaccination at the system level will further guide in making decisions regarding routine immunization in children during unprecedented situations. The duration of delay and the overall immunity achieved in a community together can guide a community if to consider the program as an emergency measure during a pandemic like situation or not.

- b. There is also a scope of research to identify the delay in vaccination along with the coverage of immunization in communities, to identify where the program has to be more managed.



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ANNEXURE – I

Urban Caregivers – Background characteristics

	Delayed in vaccinations				Timely in vaccinations		
	C1	C2	C3	C5	C4	C6	C7
Age of the caregiver	23	28	28	30	32	26	22
Religion	Hindu	Hindu	Hindu	Hindu	Hindu	Hindu	Hindu
Caste	General	OBC	SC	General	OBC	General	Not aware of
Marital status	Married	Married	Married	Married	Married	Married	Married
Highest educational level	Diploma	Graduate	Post-Graduate	Graduate	Graduate	Graduate	High School
Employment status of caregiver	Not employed	Regular employed	Not employed	Not employed. Worked as an accountant before 1st child, now going for PSC coaching class	Not employed	Regular employed	Not employed
Occupation of caregiver	None	Administerial manager– Govt	None	None	None	Sales and services - Teleservice	None
Occupation of head of family	Skilled - Carpenter	Administerial manager– Govt	Sales and Services	Sales – Medical representative	Skilled -	Sales and services	Skilled – Hitachi mech and driver
Age of mother at 1 st birth	19	27	25	24	24	23	19
Sex of the child	Male	Male	Male	Female	Female	Female	Male
Birth order of the child	2	1	2	2	3	1	1
Age of the child (years)	2	1	2	2	1.5	2.25	1.5
Number of household members	7	6	6	4	11	4	3
Do you have the vaccination card of the child?	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Rural Caregivers – Background characteristics

	Delayed in vaccination	Timely in vaccination				
	C3	C1	C2	C4	C5	C6
Age of the caregiver	25	36	28	25	23	42
Religion	Hindu	Muslim	Muslim	Hindu	Hindu	Hindu
Caste	General	OBC	OBC	General	General	SC
Marital status	Married	Married	Married	Married	Married	Married
Highest educational level	Graduate	Higher Secondary	Higher secondary	Graduate	Higher Secondary	High School level
Employment status	Not employed, going for PSC coaching class	Not employed	Not employed	Not employed, going for PSC coaching class	Not employed	Not employed
Occupation of caregiver	None	None	None	None	None	None
Occupation of head of family	Skilled - Postman	Sales and Services – Own business	Skilled – Driver in Gulf	Service – LP school teacher	Skilled - Driver	Skilled - Painter
Age of mother at 1 st birth	24	19	18	24	21	38
Sex of the child	Female	male	Male	Female	Male	Female
Birth order of the child	1	5	2	1	1	1
Age of the child (years)	1.45	2.5	2.5	1.5	2	3
Number of household members	8	9	5	6	6	4
Do you have the vaccination card of the child?	Yes	Yes	Yes	Yes	Yes	Yes

ANNEXURE - II

RESEARCH SUBJECT INFORMATION SHEET CAREGIVERS OF UNDER-THREE CHILDREN

Namaskaram. I am Dr Alisha Khan, currently pursuing Master of Public Health course at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & technology, Trivandrum. This is an information sheet to guide you to consent for the study.

1. MPH Research

I am doing a study on “Barriers to timeliness of routine immunization for children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation”, as part of my course work. This sheet is a guidance to know about your participation and help to decide your consent for the study.

2. Purpose and Nature of Study -

This study to understand the reasons for barriers in timely routine immunization of under-three children of Thiruvananthapuram district during 2020-21. In this study, in-depth interviews will be conducted with the caregivers of 12–36 month old children, of Thiruvananthapuram district. The children are selected from the Reproductive and Child Health registries in the PHCs selected for the study. I would like to understand the concerns of parents and guardians during the experiences accessing timely immunization for your children. This study is being conducted by myself as Principal Investigator (PI) under supervision of Dr Mala Ramanathan, Professor at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & Technology, Trivandrum.

Participation involves answering some questions regarding your awareness related to timely routine immunization and concerns and difficulties you faced during the time when the child had to get their vaccine. If you are willing to participate in the study, then I will need to interview you for about 20-30 minutes. For documentation purpose, I would like to audio-record our interview. After the interview, you may be contacted again only if it is found that the information documented is either incomplete or any further clarification is needed.

3. Foreseeable/risks and discomforts to participants due to the research

The interview information will not harm you. Questions are only to know your understanding and the difficulties faced during your children’s immunization decisions. I will need 20-30 minutes of your time, according to your answers. At no point of the research, will your identity be used for the purpose of the study.

4. Benefits from the study

The study will not directly benefit you. Participating in this study will not have any extra benefit from the institute. However, the information shared by you will be beneficial for future research and planning of the routine immunization program when a crisis is met.

5. Alternate procedures if consent not given

I will go to the next selected participant from the list of children asking for participation, if consent not given to participate by you.

6. Confidentiality

The audio recordings and the information of the interview will be kept highly confidential and will only be accessed by myself and my guide supervisor. All the information of the interview will be used solely for research purpose only. Personal details will not be shared with anyone at any time of the study. The data other than your personal details will be taken for analysis. The results of the analysis will be published and presented in public forums.

7. Compensation for the study

There are no incentives or compensations for injury due to this study. No possible harms are expected in this interview.

8. Contact

In case of any query or clarification of the study, now or in future you can contact me anytime through phone directly (Phone Number – 9489956676). In case of need of more clarification of the study, you can contact the member- secretary of the Institute Ethics Committee of SCTIMST, as given below.

NAME: DR SRINIVAS G

ADDRESS: MEMBER SECRETARY, INSTITUTIONAL ETHICS COMMITTEE,
SCTIMST, TRIVANDRUM, 695011

CONTACT NUMBER: 0471-2524689(OFFICE)

EMAIL: iec.mem.sec@sctimst.ac.in

9. Withdrawal from the study

Your participation in this study is entirely voluntary. You are free to withdraw from the study at any time of the interview, without any explanation or fear of harm. There is no penalty due to the withdrawal or non-participation.

ANNEXURE - III

RESEARCH SUBJECT INFORMATION SHEET HEALTH SYSTEM FUNCTIONARIES AND LSGI STAKEHOLDERS

Namaskaram. I am Dr Alisha Khan, currently pursuing Master of Public Health course at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & technology, Trivandrum. This is an information sheet to guide you to consent for the study.

1. MPH Research

I am doing a study on “Barriers to timeliness of routine immunization of children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation”, as part of my course work. This sheet is a guidance to know about your participation and help to decide your consent for the study.

2. Purpose and Nature of Study -

This study is to understand the reasons for barriers in timely routine immunization of under-three children, from the functionaries of LSGs, the medical officer in charge, junior public health nurse of PHCs, and ASHA Workers and anganwadi workers related to timely routine immunization in Thiruvananthapuram district during 2020-21. The PHCs are purposively selected with respect to urban and rural blocks for the study. I would like to understand the perspectives, and barriers for timely routine immunization in the system for children during the pandemic period. This study is being conducted by myself as Principal Investigator (PI) under supervision of Dr Mala Ramanathan, Professor at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & Technology, Trivandrum.

Participation involves answering some questions regarding your awareness and views related to timely routine immunization and concerns and difficulties that the system faced during the time when the child had come to get their vaccine. If you are willing to participate in the study, then I will need to interview you for about 20-30 minutes. For documentation purpose, I would like to audio-record our interview. After the interview, you may be contacted again only if it is found that the information documented is either incomplete or any further clarification is needed.

3. Foreseeable/risks and discomforts to participants due to the research

Questions in the interview are only to know your understanding and the concerns faced related to routine immunization system as part of effects of the COVID pandemic. I will need 20-30 minutes of your time, according to your answers. At no point of the research, will your identity be used for the purpose of the study.

4. Benefits from the study

The study will not directly benefit you. Participating in this study will not have any extra benefit from the Institution either. However, the information shared by you will be helpful for future research and planning.

5. Alternate procedures if consent not given

I will go to the next participant in the PHC asking for participation, if consent not given to participate by you.

6. Confidentiality

The audio recordings and the information of the interview will be kept highly confidential and will only be accessed by myself and my guide supervisor. All the information of the interview will be used solely for research purpose only. Personal details or details identifying the health system will not be shared with anyone at any time of the study. The data other than your personal details and the health system identity, will be taken for analysis. The results of the analysis will be published and presented in public forums.

7. Compensation for the study

There are no provisions for incentives or compensations for injury due to this study. No possible harms are expected in this interview.

8.Contact

In case of any query or clarification of the study, now or in future you can contact me anytime through phone directly (Phone Number – 9489956676). In case of need of more clarification of the study, you can contact the member- secretary of the Institute Ethics Committee of SCTIMST, as given below.

NAME: DR SRINIVAS G

ADDRESS: MEMBER SECRETARY, INSTITUTIONAL ETHICS COMMITTEE,
SCTIMST, TRIVANDRUM, 695011

CONTACT NUMBER: 0471-2524689(OFFICE)

EMAIL: iec.mem.sec@sctimst.ac.in

9.Withdrawal from the study

Your participation in this study is entirely voluntary. You are free to withdraw from the study at any time of the interview, without any explanation or fear of harm. There is no penalty due to the withdrawal or non-participation.

ANNEXURE - IV

INFORMED CONSENT FORM CAREGIVERS OF UNDER-THREE CHILDREN

1. I, have read/heard and understood all the information provided in the 'Research subject information sheet' by Dr Alisha Khan and I have clarified all my doubts. I agree that the interview will be conducted according to my convenience. By signing/putting thumb impression I confirm my voluntary participation in this study.

2. I agree I have to participate for 20-30 minutes according to my answers.

3. I agree to be contacted again if any missing information or further clarification is needed. I understand my right to withdraw from the interview anytime without any obligation. I also understand that my identity will not be revealed in any published or released information from this study. I have been informed who should be contacted for further clarifications.

4. I agree that the information other than my personal data is used for analysis and study purposes. I have understood the purpose, benefits and foreseeable risks of the study.

I agree to take part in this study.

Signature of the respondent/witness to the respondent or

Thumb impression (if unable to sign):

I agree to audio-record the interview. (If cannot, the interview will be written down by the PI)

Signature of the respondent/witness to the respondent or

Thumb impression (if unable to sign):

Name and signature of the interviewer

Date:

Place:

ANNEXURE - V

INFORMED CONSENT FORM HEALTH SYSTEM WORKERS AND LSGI STAKEHOLDERS

1. I, have read/heard and understood all the information provided in the 'Research subject information sheet' by Dr Alisha Khan and I have clarified all my doubts. I agree that the interview will be conducted according to my convenience of time and place. By signing/putting thumb impression I confirm my voluntary participation in this study.

2. I agree I have to participate for 20-30 minutes according to my answers.

3. I agree to be contacted again if any missing information or further clarification is needed. I understand my right to withdraw from the interview anytime without any obligation. I also understand that my identity or the health system identity will not be revealed in any published or released information from this study. I have been informed who should be contacted for further clarifications.

4. I agree that the information other than my personal data and the health system identity is used for analysis and study purposes. I have understood the purpose, benefits and foreseeable risks of the study.

I agree to take part in this study.

Signature of the respondent/witness of the respondent or

Thumb impression (if unable to sign):

I agree to audio-record the interview. (If cannot, the interview will be written down by the PI)

Signature of the respondent/witness of the respondent or

Thumb impression (if unable to sign):

Name and signature of the interviewer

Date and Place:

ANNEXURE - VI

INDEPTH INTERVIEW GUIDE CAREGIVERS OF UNDER-THREE CHILDREN

Namaskaram. I am Dr Alisha Khan, currently pursuing Master of Public Health course at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & technology, Trivandrum. I am doing a study on “Barriers to timeliness of routine immunization of children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation”, as part of my course work. With the consent given to participate in this study, we will start now. This interview will take 20-30 minutes.

Code No.	Variable	Responses			
R1	Household ID				
R2	Date of Interview	<table border="1"> <tr> <td>dd</td> <td>mm</td> <td>yy</td> </tr> </table>	dd	mm	yy
dd	mm	yy			
R3	Start time	<table border="1"> <tr> <td>hh</td> <td>mm</td> <td>am/pm</td> </tr> </table>	hh	mm	am/pm
hh	mm	am/pm			
R4	End time	<table border="1"> <tr> <td>hh</td> <td>mm</td> <td>am/pm</td> </tr> </table>	hh	mm	am/pm
hh	mm	am/pm			
R5	Number of visits made to complete the interview				
R6	Type of health system used to access RI	1.Public 2.Private			
R7	Location of residence	1.Urban 2.Semiurban 3.Rural			

1. Background characteristics

S/no	Question	Responses	Remarks
1	Age of the caregiver		
2	Sex		
3	Relationship with the child	1.Mother 2.Father 3.Others (Specify).....	
4	Religion	1.Hindu 2.Muslim 3.Christian 4.Others (Specify)	

5	Caste	1.General 2.OBC 3.SC 4.ST	
6	What is the marital status of the child's parents?	1.Married 2.Single 3.Separated 4.No longer alive	
7	Highest educational level	1. No formal education 2. Primary level 3. High School level 4. Higher Secondary level 5. Diploma level 6. Graduate level 7. Post Graduate and above	
8	Employment status	1. Regular employed 2. Self-employed 3. Not employed	
9	Occupation (if regular and self-employed, in the previous question)	1. Professional/Technical/Administerial/manager 2. Clerical 3. Sales and Services 4. Skilled	
10	Occupation of the head of the family	1. Professional/Technical/Administerial/manager 2. Clerical 3. Sales and Services 4. Skilled	
11	Age of mother at first birth?		
12	Sex of the child	1. Male 2. Female	
13	What is the birth order of the child?	1. 1 2. 2-3 3. 4-5 4. 6+	
14	Age of the child		
15	Number of household members in the family?		
16	Do you have a vaccination card of the child?	1. Yes 2. No	

2. Interview guide

1. There is a schedule that is pre-fixed by doctor for various vaccinations. Why do you think this time period fixed for each of the vaccination?

2. What did your doctor advice you regarding the importance of routine immunization?
3. What is one supposed to do if we miss the schedule that is fixed?
4. What will happen if the child does not get vaccinated at the due time of a vaccination?
5. Where do you go to get your child's vaccine? What steps do you take to not miss the due date for vaccination?
6. Was there any advices or initiatives from the health system workers to help you to get your child immunized during then?
7. What are the things you have to do to be able to go to the vaccine centre with the child? By that I mean, do you seek help from others to accompany you? Do you have to wait till there is a holiday for other working family members? Etc?
8. How far is the vaccine centre from where you reside? What was your mode of transportation during the time of restrictions? Did you have to face any problems while trying to visit the centre?
How did the restrictions due to COVID protocols affect this? Can you please describe them?
9. How much money did you have to spend to get the vaccine for the child? Was it the same as your prior visits before lockdowns? How did you get the money for doing this?
10. When you visited the vaccine center, was it easy to get the child vaccinated when you went to the center? How long did it take? How many people were already there? What were your concerns regarding COVID infection in that situation? What advice did you receive from the health workers regarding your child's routine immunization?
11. If I need any further clarifications, can I call you over phone (mobile) to seek further clarifications?

Yes/No

If yes, note number to contact.

Thank you for your valuable time!

ANNEXURE - VII

INDEPTH INTERVIEW GUIDE HEALTH SYSTEM FUNCTIONARIES AND LSGI STAKEHOLDERS

Namaskaram. I am Dr Alisha Khan, currently pursuing Master of Public Health course at Achutha Menon Centre for Health Science Studies, Sree Chithra Tirunal Institute for Medical Sciences & technology, Trivandrum. I am doing a study on “Barriers to timeliness of routine immunization of children under three years of age in Thiruvananthapuram district in 2020-21, during the conditions associated with the pandemic situation”, as part of my course work. With the consent given to participate in this study, we will start now. This interview will take 20-30 minutes.

Code No.	Variable	Responses			
R1	Health System ID				
R3	Health system worker ID				
R2	Date of Interview	dd	mm	yy	
R3	Start time	hh	mm	am/pm	
R4	End time	hh	mm	am/pm	
R5	Number of visits made to complete the interview				

I. Background Characteristics

1. For how many years have you been working in your current position?
3. What is the type of your recruitment?
Permanent / Temporary
4. How often do you meet your supervisors for review?

II. Interview Guide

1. What are your duties related to children's routine immunization program? Why is immunization of children an important public health program?
2. There was a temporary hold on the immunization system during March 2020, when COVID lockdown was announced. How did that affect the program when it resumed? Did all the children who were scheduled to get vaccination in the lockdown period maintain the timing of the dosage?
3. Can you describe if any steps were taken to manage routine immunization program for children during those times? What, according to you could have been the barriers that came up during that time to take immunization of children on their due dates?
4. Was there a vaccine shortage problem at anytime? What were the problems you faced with immunization program during this period?
5. What were the problems experienced by health care workers in continuing to work providing immunization to children during that time? Could all persons come to work? How did they manage to continue to work?
6. What additional precautions were taken to make sure all children got their vaccinations?

If I need further clarifications, can I contact you over phone and obtain the clarifications?
Yes/no.

If yes, note the number to contact.

Thank you for your valuable time!

ANNEXURE - VIII

RESEARCH SUBJECT INFORMATION SHEET CAREGIVERS OF UNDER-THREE CHILDREN

നമസ്കാരം. തിരുവനന്തപുരത്തെ ശ്രീചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്യുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിൽ ഇപ്പോൾ മാസ്റ്റർ ഓഫ് പബ്ലിക് ഹെൽത്ത് കോഴ്സ് പഠിക്കുന്ന ഡോ. അലിഷാ ഖാൻ ആണ് ഞാൻ. പഠനത്തിന് സമ്മതം നൽകുന്നതിന് നിങ്ങളെ നയിക്കുന്നതിനുള്ള ഒരു വിവര ഷീറ്റാണിത്.

1. എംപിഎച്ച് ഗവേഷണം

“പകർച്ചവ്യാധിയുമായി ബന്ധപ്പെട്ട സാഹചര്യങ്ങളിൽ 2020-21 ൽ തിരുവനന്തപുരം ജില്ലയിൽ മൂന്ന് വയസ്സിന് താഴെയുള്ള കുട്ടികൾക്ക് പതിവായി പ്രതിരോധ കുത്തിവയ്പ്പ് നൽകുന്നതിനുള്ള തടസ്സങ്ങൾ” എന്ന വിഷയത്തിൽ എന്റെ കോഴ്സ് വർക്കിന്റെ ഭാഗമായി ഞാൻ ഒരു പഠനം നടത്തുകയാണ്.

2. പഠനത്തിന്റെ ഉദ്ദേശ്യവും സ്വഭാവവും -

2020-21 കാലയളവിൽ തിരുവനന്തപുരം ജില്ലയിലെ മൂന്ന് വയസ്സിൽ താഴെയുള്ള കുട്ടികൾക്ക് സമയബന്ധിതമായി പ്രതിരോധ കുത്തിവയ്പ്പ് നൽകുന്നത് തടസ്സങ്ങൾ കൂട്ടുന്ന കാരണങ്ങൾ മനസ്സിലാക്കുന്നതിന് വേണ്ടിയാണ് ഈ പഠനം. ഈ പഠനത്തിൽ, തിരുവനന്തപുരം ജില്ലയിലെ 12-36 മാസം പ്രായമുള്ള കുട്ടികളുടെ പരിചരണദാതാക്കളുമായി ആഴത്തിലുള്ള അഭിമുഖങ്ങൾ നടത്തും. പഠനത്തിനായി തിരഞ്ഞെടുത്ത പഞ്ചായത്തുകളിലെ പ്രത്യുൽപ്പാദന, ശിശു ആരോഗ്യ രജിസ്ട്രികളിൽ നിന്നാണ് കുട്ടികളെ തിരഞ്ഞെടുക്കുന്നത്. നിങ്ങളുടെ കുട്ടികൾക്ക് സമയബന്ധിതമായി പ്രതിരോധ കുത്തിവയ്പ്പ് ലഭിക്കുന്ന അനുഭവങ്ങളിൽ മാതാപിതാക്കളുടെയും രക്ഷാകർത്താക്കളുടെയും ആശങ്കകൾ മനസ്സിലാക്കാൻ ഞാൻ ആഗ്രഹിക്കുന്നു. തിരുവനന്തപുരം, ശ്രീചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്യുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിലെ പ്രൊഫസർ ഡോ. മാലാ രാമനാഥന്റെ മേൽനോട്ടത്തിൽ പ്രിൻസിപ്പൽ ഇൻവെസ്റ്റിഗേറ്റർ (പിഐ) എന്ന നിലയിൽ ഞാനാണ് ഈ പഠനം നടത്തുന്നത്. കുട്ടിക്ക് വാക്സിൻ എടുക്കേണ്ടിവന്ന സമയത്ത് നിങ്ങൾ നേരിട്ട സമയബന്ധിത പതിവ് പ്രതിരോധ കുത്തിവയ്പ്പ്, ആശങ്കകൾ, ബുദ്ധിമുട്ടുകൾ എന്നിവയുമായി ബന്ധപ്പെട്ട നിങ്ങളുടെ അവബോധത്തെ കുറിച്ചുള്ള ചില ചോദ്യങ്ങൾക്ക് ഉത്തരം നൽകുന്നത് പങ്കാളിത്തത്തിൽ ഉൾപ്പെടുന്നു. പഠനത്തിൽ പങ്കെടുക്കാൻ നിങ്ങൾ തയ്യാറാണെങ്കിൽ, ഏകദേശം 20-30 മിനിറ്റ് ഞാൻ നിങ്ങളെ അഭിമുഖം ചെയ്യേണ്ടതുണ്ട്. ഡോക്യുമെന്റേഷൻ ഉദ്ദേശ്യത്തിനായി, ഞങ്ങളുടെ അഭിമുഖം ഓഡിയോ റെക്കോർഡ് ചെയ്യാൻ ഞാൻ ആഗ്രഹിക്കുന്നു. അഭിമുഖത്തിന് ശേഷം, ഡോക്യുമെന്റ് ചെയ്ത വിവരങ്ങൾ അപൂർണ്ണമോ കൂടുതൽ വ്യക്തത ആവശ്യമോ ആണെന്ന് കണ്ടെത്തിയാൽ മാത്രമേ നിങ്ങളെ വീണ്ടും ബന്ധപ്പെടാൻ കഴിയൂ.

3. ഗവേഷണം കാരണം പങ്കാളികൾക്ക് മുൻകൂട്ടി കാണാവുന്ന/അപകടസാധ്യതകളും അസ്വസ്ഥതകളും

അഭിമുഖ വിവരങ്ങൾ നിങ്ങൾക്ക് ദോഷം ചെയ്യില്ല. നിങ്ങളുടെ ഗ്രാഹ്യവും കുട്ടികളുടെ പ്രതിരോധ കുത്തിവയ്പ്പ് തീരുമാനങ്ങളിൽ അഭിമുഖീകരിക്കുന്ന ബുദ്ധിമുട്ടുകളും അറിയുക മാത്രമാണ് ചോദ്യങ്ങൾ. നിങ്ങളുടെ ഉത്തരങ്ങൾ അനുസരിച്ച് എനിക്ക് നിങ്ങളുടെ സമയം 20-30 മിനിറ്റ് ആവശ്യമാണ്. ഗവേഷണത്തിന്റെ ഒരു ഘട്ടത്തിലും, പഠനത്തിന്റെ ഉദ്ദേശ്യത്തിനായി നിങ്ങളുടെ ഐഡൻറിറ്റി ഉപയോഗിക്കപ്പെടില്ല.

4. പഠനത്തിൽ നിന്നുള്ള പ്രയോജനങ്ങൾ

പഠനം നിങ്ങൾക്ക് നേരിട്ട് പ്രയോജനം ചെയ്തില്ല. ഈ പഠനത്തിൽ പങ്കെടുക്കുന്നതിന് ഇൻസ്റ്റിറ്റ്യൂട്ടിൽ നിന്ന് അധിക പ്രയോജനം ഉണ്ടായിരിക്കില്ല. എന്നിരുന്നാലും, നിങ്ങൾ പങ്കിടുന്ന വിവരങ്ങൾ ഒരു പ്രതിസന്ധി നേരിടുമ്പോൾ പതിവ് പ്രതിരോധ കുത്തിവയ്പ്പ് പ്രോഗ്രാമിന്റെ ഭാവി ഗവേഷണത്തിനും ആസൂത്രണത്തിനും പ്രയോജനകരമായിരിക്കും.

5. സമ്മതം നൽകിയില്ലെങ്കിൽ ഇതര നടപടിക്രമങ്ങൾ

നിങ്ങൾ പങ്കെടുക്കുന്നതിന് സമ്മതം നൽകിയില്ലെങ്കിൽ, പങ്കാളിത്തം ആവശ്യപ്പെടുന്ന കുട്ടികളുടെ പട്ടികയിൽ നിന്ന് തിരഞ്ഞെടുക്കപ്പെട്ട അടുത്ത പങ്കാളിയിലേക്ക് ഞാൻ പോകും.

6. രഹസ്യാത്മകത

ഓഡിയോ റെക്കോർഡിംഗുകളും അഭിമുഖത്തിന്റെ വിവരങ്ങളും വളരെ രഹസ്യാത്മകമായി സൂക്ഷിക്കും, ഞാനും എന്റെ ഗൈഡ് സൂപ്പർവൈസറും മാത്രമേ ആക്സസ് ചെയ്യപ്പെടുകയുള്ളൂ. അഭിമുഖത്തിന്റെ എല്ലാ വിവരങ്ങളും ഗവേഷണ ഉദ്ദേശ്യത്തിനായി മാത്രം ഉപയോഗിക്കും. പഠനത്തിന്റെ ഏത് സമയത്തും വ്യക്തിഗത വിശദാംശങ്ങൾ ആരുമായും പങ്കിടില്ല. നിങ്ങളുടെ വ്യക്തിഗത വിശദാംശങ്ങൾ ഒഴികെയുള്ള ഡാറ്റ വിശകലനത്തിനായി എടുക്കും. വിശകലനത്തിന്റെ ഫലങ്ങൾ പ്രസിദ്ധീകരിക്കുകയും പൊതു വേദികളിൽ അവതരിപ്പിക്കുകയും ചെയ്യും.

7. പഠനത്തിനുള്ള നഷ്ടപരിഹാരം

ഈ പഠനം മൂലം ഇൻസെന്റീവുകൾക്കോ പരിക്കുകൾക്കുള്ള നഷ്ടപരിഹാരത്തിനോ വ്യവസ്ഥകളൊന്നുമില്ല. ഈ അഭിമുഖത്തിൽ സാധ്യമായ ദോഷങ്ങളൊന്നും പ്രതീക്ഷിക്കുന്നില്ല.

8. ബന്ധപ്പെടാൻ-

പഠനത്തിന്റെ എന്തെങ്കിലും ചോദ്യമോ വിശദീകരണമോ ഉണ്ടെങ്കിൽ, ഇപ്പോഴോ ഭാവിയിലോ നിങ്ങൾക്ക് എപ്പോൾ വേണമെങ്കിലും എന്നെ ഫോണിലൂടെ നേരിട്ട് ബന്ധപ്പെടാം (ഫോൺ നമ്പർ- 9489956676). പഠനത്തെക്കുറിച്ച് കൂടുതൽ വ്യക്തത ആവശ്യമുണ്ടെങ്കിൽ, ചുവടെ നൽകിയിരിക്കുന്നത് പോലെ നിങ്ങൾക്ക് SCTIMST-യുടെ ഇൻസ്റ്റിറ്റ്യൂട്ട് എത്തിക്സ് കമ്മിറ്റിയുടെ മെമ്പർ-സെക്രട്ടറിയുമായി ബന്ധപ്പെടാം.

പേര്: ഡോ ശ്രീനിവാസ് ജി

വിലാസം: മെമ്പർ സെക്രട്ടറി, ഇൻസെന്റീവുഷണൽ എത്തിക്സ് കമ്മിറ്റി, SCTIMST,

തിരുവനന്തപുരം, 695011

ബന്ധപ്പെടേണ്ട നമ്പർ: 04712524689(ഓഫീസ്)

ഇമെയിൽ: iec.mem.sec@sctimst.ac.in

9. പഠനത്തിൽ നിന്ന് പിന്മാറാൻ

ഈ പഠനത്തിൽ നിങ്ങളുടെ പങ്കാളിത്തം പൂർണ്ണമായും സ്വമേധയാ ഉള്ളതാണ്. ഇന്റർവ്യൂവിന്റെ ഏത് സമയത്തും, ഒരു വിശദീകരണമോ ഉപദ്രവമോ ഭയമോ കൂടാതെ നിങ്ങൾക്ക് പഠനത്തിൽ നിന്ന് പിന്മാറാൻ സ്വാതന്ത്ര്യമുണ്ട്. പിൻവലിക്കൽ അല്ലെങ്കിൽ പങ്കെടുക്കാത്തതിനാൽ പിഴയില്ല.

ANNEXURE - IX

RESEARCH SUBJECT INFORMATION SHEET HEALTH SYSTEM FUNCTIONARIES AND LSGI STAKEHOLDERS

നമസ്കാരം. തിരുവനന്തപുരത്തെ ശ്രീചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്ചുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിൽ ഇപ്പോൾ മാസ്റ്റർ ഓഫ് പബ്ലിക് ഹെൽത്ത് കോഴ്സ് പഠിക്കുന്ന ഡോ. അലിഷാ ഖാൻ ആണ് ഞാൻ. പഠനത്തിന് സമ്മതം നൽകുന്നതിന് നിങ്ങളെ നയിക്കുന്നതിനുള്ള ഒരു വിവര ഷീറ്റാണിത്.

1. എംപിഎച്ച് ഗവേഷണം

“പകർച്ചവ്യാധിയുമായി ബന്ധപ്പെട്ട സാഹചര്യങ്ങളിൽ 2020-21 ൽ തിരുവനന്തപുരം ജില്ലയിൽ മൂന്ന് വയസ്സിന് താഴെയുള്ള കുട്ടികൾക്ക് പതിവായി പ്രതിരോധ കുത്തിവയ്പ്പ് നൽകുന്നതിനുള്ള തടസ്സങ്ങൾ” എന്ന വിഷയത്തിൽ എന്റെ കോഴ്സ് വർക്കിന്റെ ഭാഗമായി ഞാൻ ഒരു പഠനം നടത്തുകയാണ്.

2. പഠനത്തിന്റെ ലക്ഷ്യവും സ്വഭാവവും

2020-21 കാലയളവിൽ തിരുവനന്തപുരം ജില്ലയിലെ പിഎച്ച്സികളുടെ ചുമതലയുള്ള പഞ്ചായത്ത് അംഗങ്ങൾ, മെഡിക്കൽ ഓഫീസർ, ജൂനിയർ പബ്ലിക് ഹെൽത്ത് നഴ്സ്, ആശാ വർക്കർമാർ എന്നിവരിൽ നിന്ന് മൂന്ന് വയസ്സിന് താഴെയുള്ള കുട്ടികൾക്ക് സമയബന്ധിതമായി പ്രതിരോധ കുത്തിവയ്പ്പ് നൽകുന്നതിനുള്ള തടസ്സങ്ങളും കാഴ്ചപ്പാടുകളും മനസ്സിലാക്കുന്നതിനാണ് ഈ പഠനം. പഠനത്തിനായി നഗര-ഗ്രാമീണ ബ്ലോക്കുകളെ സംബന്ധിച്ച് പഞ്ചായത്തുകൾ ഉദ്ദേശ്യപൂർവ്വം തിരഞ്ഞെടുത്തിരിക്കുന്നു. തിരുവനന്തപുരത്തെ ശ്രീചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്ചുതമേനോൻ സെന്റർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിലെ പ്രൊഫസർ ഡോ. മാലാ രാമനാഥന്റെ മേൽനോട്ടത്തിൽ പ്രിൻസിപ്പൽ ഇൻവെസ്റ്റിഗേറ്റർ (പിഐ) എന്ന നിലയിൽ ഞാനാണ് ഈ പഠനം നടത്തുന്നത്.

നിങ്ങളുടെ അവബോധവും സമയബന്ധിതമായ പ്രതിരോധ കുത്തിവയ്പ്പുമായി ബന്ധപ്പെട്ട കാഴ്ചപ്പാടുകളും, കുട്ടി വാക്സിൻ എടുക്കാൻ വന്ന സമയത്ത് സിസ്റ്റം നേരിട്ട ആശങ്കകളും ബുദ്ധിമുട്ടുകളും സംബന്ധിച്ച ചില ചോദ്യങ്ങൾക്ക് ഉത്തരം നൽകുന്നത് പങ്കാളിത്തത്തിൽ ഉൾപ്പെടുന്നു. നിങ്ങൾ പഠനത്തിൽ പങ്കെടുക്കാൻ തയ്യാറാണെങ്കിൽ, ഞാൻ നിങ്ങളെ ഏകദേശം 20-30 മിനിറ്റ് അഭിമുഖം നടത്തേണ്ടതുണ്ട്. ഡോക്യുമെന്റേഷൻ ആവശ്യത്തിനായി, നമ്മുടെ അഭിമുഖം ഓഡിയോ-റെക്കോർഡ് ചെയ്യാൻ ഞാൻ ആഗ്രഹിക്കുന്നു. അഭിമുഖത്തിന് ശേഷം, രേഖപ്പെടുത്തപ്പെട്ട വിവരങ്ങൾ അപൂർണ്ണമാണെന്നോ അല്ലെങ്കിൽ കൂടുതൽ വ്യക്തത ആവശ്യമാണെന്നോ കണ്ടെത്തിയാൽ മാത്രമേ നിങ്ങളെ വീണ്ടും ബന്ധപ്പെടാൻ കഴിയൂ.

3. ഗവേഷണം മൂലം പങ്കെടുക്കുന്നവർക്ക് മുൻകൂട്ടി കാണാവുന്ന/അപകടങ്ങളും അസ്വാസ്ഥ്യങ്ങളും

അഭിമുഖ വിവരങ്ങൾ നിങ്ങളെ ദോഷകരമായി ബാധിക്കുകയില്ല. നിങ്ങളുടെ ഉത്തരമനുസരിച്ച് എനിക്ക് നിങ്ങളുടെ സമയത്തിന്റെ 20-30 മിനിറ്റ് ആവശ്യമാണ്. ഗവേഷണത്തിന്റെ ഒരു ഘട്ടത്തിലും, നിങ്ങളുടെ ഐഡൻറിറ്റി പഠനത്തിന്റെ ഉദ്ദേശ്യത്തിനായി ഉപയോഗിക്കില്ല.

4. പഠനത്തിൽ നിന്നുള്ള നേട്ടങ്ങൾ

പഠനം നിങ്ങൾക്ക് നേരിട്ട് ഗുണം ചെയ്യില്ല. ഈ പഠനത്തിൽ പങ്കെടുക്കുന്നതിലൂടെ ഇൻസ്റ്റിറ്റ്യൂട്ടിൽ നിന്ന് അധിക നേട്ടമൊന്നും ഉണ്ടാകില്ല. എന്നിരുന്നാലും, നിങ്ങൾ പങ്കിടുന്ന വിവരങ്ങൾ ഭാവിയിലെ ഗവേഷണത്തിനും ആസൂത്രണത്തിനും സഹായകമാകും.

5. സമ്മതം നൽകിയില്ലെങ്കിൽ ഇതര നടപടിക്രമങ്ങൾ

നിങ്ങൾ പങ്കെടുക്കാൻ സമ്മതം നൽകിയില്ലെങ്കിൽ, ഞാൻ പഞ്ചായത്തിന്റെ അടുത്ത പങ്കാളിയുടെ അടുത്ത് പങ്കാളിത്തം ആവശ്യപ്പെട്ട് പോകും.

6. രഹസ്യാത്മകത

അഭിമുഖത്തിന്റെ ഓഡിയോ റെക്കോർഡിംഗുകളും വിവരങ്ങളും അതീവ രഹസ്യമായി സൂക്ഷിക്കുകയും, എനിക്കും എന്റെ ഗൈഡ് സൂപ്പർവൈസർക്കും മാത്രമേ ആക്സസ് ചെയ്യാനാകൂ. അഭിമുഖത്തിന്റെ എല്ലാ വിവരങ്ങളും ഗവേഷണ ആവശ്യങ്ങൾക്കായി മാത്രം ഉപയോഗിക്കും. വ്യക്തിഗത വിവരങ്ങളോ ആരോഗ്യ സംവിധാനത്തെ തിരിച്ചറിയുന്ന വിശദാംശങ്ങളോ പഠനത്തിന്റെ ഏത് സമയത്തും ആരുമായും പങ്കിടില്ല. നിങ്ങളുടെ വ്യക്തിഗത വിശദാംശങ്ങളും ആരോഗ്യ സിസ്റ്റം ഐഡൻറിറ്റിയും ഒഴികെയുള്ള ഡാറ്റ വിശകലനത്തിനായി എടുക്കും. വിശകലനത്തിന്റെ ഫലങ്ങൾ പ്രസിദ്ധീകരിക്കുകയും പൊതു ഫോറങ്ങളിൽ അവതരിപ്പിക്കുകയും ചെയ്യും.

7. പഠനത്തിനുള്ള നഷ്ടപരിഹാരം

ഈ പഠനം മൂലം ഇൻസെൻറീവുകൾക്കോ പരിക്കുകൾക്കുള്ള നഷ്ടപരിഹാരത്തിനോ വ്യവസ്ഥകളൊന്നുമില്ല. ഈ അഭിമുഖത്തിൽ സാധ്യമായ ദോഷങ്ങളൊന്നും പ്രതീക്ഷിക്കുന്നില്ല.

8. ബന്ധപ്പെടാൻ-

പഠനത്തിന്റെ എന്തെങ്കിലും ചോദ്യമോ വിശദീകരണമോ ഉണ്ടെങ്കിൽ, ഇപ്പോഴോ ഭാവിയിലോ നിങ്ങൾക്ക് എപ്പോൾ വേണമെങ്കിലും എന്നെ ഫോണിലൂടെ നേരിട്ട് ബന്ധപ്പെടാം (ഫോൺ നമ്പർ- 9489956676). പഠനത്തെക്കുറിച്ച് കൂടുതൽ വ്യക്തത ആവശ്യമുണ്ടെങ്കിൽ, ചുവടെ നൽകിയിരിക്കുന്നത് പോലെ നിങ്ങൾക്ക് SCTIMST-യുടെ ഇൻസ്റ്റിറ്റ്യൂട്ട് എത്തിക്സ് കമ്മിറ്റിയുടെ മെമ്പർ-സെക്രട്ടറിയുമായി ബന്ധപ്പെടാം.

പേര്: ഡോ ശ്രീനിവാസ് ജി

വിലാസം: മെമ്പർ സെക്രട്ടറി, ഇൻസ്റ്റിറ്റ്യൂഷണൽ എത്തിക്സ് കമ്മിറ്റി, SCTIMST, തിരുവനന്തപുരം, 695011

ബന്ധപ്പെടേണ്ട നമ്പർ: 04712524689(ഓഫീസ്)

ഇമെയിൽ: iec.mem.sec@sctimst.ac.in

9. പഠനത്തിൽ നിന്ന് പിന്മാറാൻ

ഈ പഠനത്തിൽ നിങ്ങളുടെ പങ്കാളിത്തം പൂർണ്ണമായും സ്വമേധയാ ഉള്ളതാണ്. ഇൻറർവ്യൂവിന്റെ ഏത് സമയത്തും, ഒരു വിശദീകരണമോ ഉപദ്രവമോ ഭയമോ കൂടാതെ നിങ്ങൾക്ക് പഠനത്തിൽ നിന്ന് പിന്മാറാൻ സ്വാതന്ത്ര്യമുണ്ട്. പിൻവലിക്കൽ അല്ലെങ്കിൽ പങ്കെടുക്കാത്തതിനാൽ പിഴയില്ല.

ANNEXURE - X

INFORMED CONSENT FORM CAREGIVERS OF UNDER-THREE CHILDREN

1. ഞാൻഎന്റെ സൗകര്യത്തിനനുസരിച്ച് അഭിമുഖം നടത്താമെന്ന് ഞാൻ സമ്മതിക്കുന്നു. ഒപ്പിടുക/പെരുവിലാടയാളം ഇടുക വഴി, ഈ പഠനത്തിലെ എന്റെ സ്വമേധയായുള്ള പങ്കാളിത്തം ഞാൻ സ്ഥിരീകരിക്കുന്നു.

2. എന്റെ ഉത്തരങ്ങൾ അനുസരിച്ച് 20-30 മിനിറ്റ് പങ്കെടുക്കണമെന്ന് ഞാൻ സമ്മതിക്കുന്നു.

3. കാണാതായ വിവരങ്ങളോ കൂടുതൽ വിശദീകരണമോ ആവശ്യമാണെങ്കിൽ വീണ്ടും ബന്ധപ്പെടാൻ ഞാൻ സമ്മതിക്കുന്നു. യാതൊരു ബാധ്യതയുമില്ലാതെ ഏത് സമയത്തും അഭിമുഖത്തിൽ നിന്ന് പിൻവാങ്ങാനുള്ള എന്റെ അവകാശം ഞാൻ മനസ്സിലാക്കുന്നു. ഈ പഠനത്തിൽ നിന്ന് പ്രസിദ്ധീകരിക്കപ്പെട്ടതോ പുറത്തുവിടുന്നതോ ആയ ഏതെങ്കിലും വിവരങ്ങളിൽ എന്റെ ഐഡൻറിറ്റി വെളിപ്പെടുത്തപ്പെടില്ലെന്നും ഞാൻ മനസ്സിലാക്കുന്നു. കൂടുതൽ വിശദീകരണങ്ങൾക്കായി ആരെയാണ് ബന്ധപ്പെടേണ്ടതെന്ന് എനിക്ക് വിവരം ലഭിച്ചിട്ടുണ്ട്.

4. എന്റെ വ്യക്തിഗത ഡാറ്റ ഒഴികെയുള്ള വിവരങ്ങൾ വിശകലനത്തിനും പഠന ഉദ്ദേശ്യങ്ങൾക്കും ഉപയോഗിക്കുന്നുവെന്ന് ഞാൻ സമ്മതിക്കുന്നു. പഠനത്തിന്റെ ഉദ്ദേശ്യവും പ്രയോജനങ്ങളും മുൻകൂട്ടി കാണാവുന്ന അപകടസാധ്യതകളും ഞാൻ മനസ്സിലാക്കിയിട്ടുണ്ട്.

ഈ പഠനത്തിൽ പങ്കെടുക്കാൻ ഞാൻ സമ്മതിക്കുന്നു.

(പ്രതി/സാക്ഷിയുടെ ഒപ്പ്

പെരുവിലാടയാളം (ഒപ്പിടാൻ കഴിയുന്നില്ലെങ്കിൽ):

അഭിമുഖം ഓഡിയോ റെക്കോർഡ് ചെയ്യാൻ ഞാൻ സമ്മതിക്കുന്നു. (കഴിയില്ലെങ്കിൽ, അഭിമുഖം പിഎഫ് എഴുതും)

(പ്രതി/സാക്ഷിയുടെ ഒപ്പ്

പെരുവിലാടയാളം (ഒപ്പിടാൻ കഴിയുന്നില്ലെങ്കിൽ):

അഭിമുഖം നടത്തുന്നയാളുടെ പേരും ഒപ്പും:

തീയതിയും സ്ഥലവും

ANNEXURE - XI

INFORMED CONSENT FORM HEALTH SYSTEM WORKERS AND LSGI STAKEHOLDERS

1. ഞാൻ, ഡോ. അലിഷാ ഖാൻ എഴുതിയ 'റിസർച്ച് സബ്ജക്ട് ഇൻഫർമേഷൻ ഷീറ്റ്'ൽ നൽകിയിട്ടുള്ള എല്ലാ വിവരങ്ങളും ഞാൻ വായിച്ചു/കേൾക്കുകയും മനസ്സിലാക്കുകയും ചെയ്തു, എന്റെ എല്ലാ സംശയങ്ങളും ഞാൻ തീർത്തു. എന്റെ സൗകര്യത്തിനും സമയത്തിനും അനുസരിച്ച് അഭിമുഖം നടത്തുമെന്ന് ഞാൻ സമ്മതിക്കുന്നു. ഈ പഠനത്തിലെ എന്റെ സ്വമേധയാ പങ്കാളിത്തം, ഒപ്പിടുന്നതിലൂടെ/വിരലടയാളം നൽകുന്നതിലൂടെ ഞാൻ സ്ഥിരീകരിക്കുന്നു.

2. എന്റെ ഉത്തരങ്ങൾ അനുസരിച്ച് 20-30 മിനിറ്റ് പങ്കെടുക്കണമെന്ന് ഞാൻ സമ്മതിക്കുന്നു.

3. എന്തെങ്കിലും കാരണത്താൽ വിവരങ്ങളോ കൂടുതൽ വിശദീകരണമോ ആവശ്യമാണെങ്കിൽ വീണ്ടും ബന്ധപ്പെടാൻ ഞാൻ സമ്മതിക്കുന്നു. യാതൊരു ബാധ്യതയുമില്ലാതെ ഏത് സമയത്തും അഭിമുഖത്തിൽ നിന്ന് പിൻവാങ്ങാനുള്ള എന്റെ അവകാശം ഞാൻ മനസ്സിലാക്കുന്നു. ഈ പഠനത്തിൽ നിന്ന് പ്രസിദ്ധീകരിക്കപ്പെട്ടതോ പുറത്തുവിടുന്നതോ ആയ എന്തെങ്കിലും വിവരങ്ങളിൽ എന്റെ ഐഡൻറിറ്റിയോ ഹെൽത്ത് സിസ്റ്റം ഐഡൻറിറ്റിയോ വെളിപ്പെടുത്തില്ലെന്നും ഞാൻ മനസ്സിലാക്കുന്നു. കൂടുതൽ വിശദീകരണങ്ങൾക്കായി ആരെയാണ് ബന്ധപ്പെടേണ്ടതെന്ന് എനിക്ക് വിവരം ലഭിച്ചിട്ടുണ്ട്.

4. എന്റെ വ്യക്തിഗത ഡാറ്റയും സിസ്റ്റം ഐഡൻറിറ്റിയും ഒഴികെയുള്ള വിവരങ്ങൾ വിശകലനത്തിനും പഠന ഉദ്ദേശ്യങ്ങൾക്കും ഉപയോഗിക്കുന്നുവെന്ന് ഞാൻ സമ്മതിക്കുന്നു. പഠനത്തിന്റെ ഉദ്ദേശ്യവും പ്രയോജനങ്ങളും മുന്നുകൂട്ടി കാണാവുന്ന അപകടസാധ്യതകളും ഞാൻ മനസ്സിലാക്കിയിട്ടുണ്ട്.

ഈ പഠനത്തിൽ പങ്കെടുക്കാൻ ഞാൻ സമ്മതിക്കുന്നു.

പ്രതി/സാക്ഷിയുടെ ഒപ്പ്

പെരുവിരലടയാളം (ഒപ്പിടാൻ കഴിയുന്നില്ലെങ്കിൽ):

അഭിമുഖം ഓഡിയോ റെക്കോർഡ് ചെയ്യാൻ ഞാൻ സമ്മതിക്കുന്നു. (കഴിയില്ലെങ്കിൽ, അഭിമുഖം പിഎഫ് എഴുതും)

പ്രതി/സാക്ഷിയുടെ ഒപ്പ്

പെരുവിരലടയാളം (ഒപ്പിടാൻ കഴിയുന്നില്ലെങ്കിൽ):

അഭിമുഖം നടത്തുന്നയാളുടെ പേരും ഒപ്പും:

തീയതിയും സ്ഥലവും:

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ഇൻഡെപ്ത് ഇന്റർവ്യൂ ഗൈഡ് മൂന്ന് വയസ്സിൽ താഴെയുള്ള കുട്ടികളുടെ പരിചരണദാതാക്കൾക്ക്

നമസ്കാരം. ഞാൻ ഡോ. അലീഷ ഖാൻ, നിലവിൽ തിരുവനന്തപുരം, ശ്രീ ചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അദ്ധ്യക്ഷ മേനോൻ സെനറർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിൽ, മാസ്റ്റർ ഓഫ് പബ്ലിക് ഹെൽത്ത് കോഴ്സ് പഠിക്കുന്നു. എന്റെ കോഴ്സ് പ്രവർത്തനത്തിന്റെ ഭാഗമായി, "പകർച്ചവ്യാധി സാഹചര്യവുമായി ബന്ധപ്പെട്ട സാഹചര്യങ്ങളിൽ, 2020-21 ൽ തിരുവനന്തപുരം ജില്ലയിൽ മൂന്ന് വയസ്സിന് താഴെയുള്ള കുട്ടികളുടെ പതിവ് പ്രതിരോധ കുത്തിവയ്പ്പ് സമയക്രമത്തിന് തടസ്സങ്ങൾ" എന്ന തീനെ കുറിച്ചുള്ള ഒരു പഠനം ഞാൻ നടത്തുന്നു. ഈ പഠനത്തിൽ പങ്കെടുക്കുന്നതിന് സമ്മതം നൽകിയിട്ടുള്ളതിനാൽ, ഞങ്ങൾ ഇപ്പോൾ ആരംഭിക്കും. ഈ അഭിമുഖത്തിന് 20-30 മിനിറ്റ് എടുക്കും.

Code No.	Variable	Responses			
R1	Household ID				
R2	Date of Interview	dd	mm	yy	
R3	Start time	hh	mm	am/pm	
R4	End time	hh	mm	am/pm	
R5	Number of visits made to complete the interview				
R6	Type of health system used to access RI	1.Public 2.Private			
R7	Location of residence	1.Urban 2.Semiurban 3.Rural			

I. പശ്ചാത്തല സവിശേഷതകൾ

S/no	Question	Responses	Remarks
1	പരിചരണം നൽകുന്നയാളുടെ പ്രായം		
2	സെക്സ്		
3	കുട്ടിയുമായുള്ള ബന്ധം	1.അമ്മ 2.പിതാവ് 3.മറ്റുള്ളവ (വ്യക്തമാക്കുക).....	
4	മതം	1.ഹിന്ദു	

		2.മുസ്ലിം 3.ക്രിസ്ത്യൻ 4.മറ്റുള്ളവ (വ്യക്തമാക്കുക)	
5	ജാതി	1.ജനറൽ 2.ഒ.ബി.സി. 3.SC 4.ST	
6	കുട്ടിയുടെ മാതാപിതാക്കളുടെ ദാമ്പത്യ നില എന്താണ്?	1.വിവാഹിതൻ 2.സിംഗിൾ 3.വേർപെടുത്തിയിരിക്കുന്നു 4.No longer alive	
7	ഏറ്റവും ഉയർന്ന വിദ്യാഭ്യാസ നില	1. ഔപചാരിക വിദ്യാഭ്യാസം ഇല്ല 2. പ്രാഥമിക നില 3. ഹൈസ്കൂൾ തലം 4. ഹയർ സെക്കൻഡറി തലം 5. ഡിപ്ലോമ ലെവൽ 6. ബിരുദ തലം 7. ബിരുദാനന്തര ബിരുദവും അതിനു മുകളിലും	
8	എംപ്ലോയ്മെന്റ് സ്റ്റാറ്റസ്	1. പതിവായി ജോലി ചെയ്യുന്നു 2. സ്വയം തൊഴിൽ 3. ജോലി ചെയ്തിട്ടില്ല	
9	തൊഴിൽ (മുമ്പത്തെ ചോദ്യത്തിൽ, സ്ഥിരവും സ്വയം തൊഴിൽ ചെയ്യുന്നവനുമാണെങ്കിൽ)	1. പ്രൊഫഷണൽ/ടെക്നിക്കൽ/ ആഡ്മിനിസ്ട്രിയൽ/മാനേജർ 2. ക്ലറിക്കൽ 3. സെയിൽസ് ആൻഡ് സർവീസസ് 4. വൈദഗ്ധ്യം	
10	കുടുംബനാമന്റെ തൊഴിൽ	1. പ്രൊഫഷണൽ/ടെക്നിക്കൽ/ ആഡ്മിനിസ്ട്രിയൽ/മാനേജർ 2. ക്ലറിക്കൽ 3. സെയിൽസ് ആൻഡ് സർവീസസ് 4. വൈദഗ്ധ്യം	
11	ആദ്യ പ്രസവത്തിൽ അമ്മയുടെ പ്രായം എത്രയാണ്?		
12	കുട്ടിയുടെ ലൈംഗികത	1. ആൺകുട്ടി 2. പെൺകുട്ടി	
13	കുട്ടിയുടെ ജനന ക്രമം എന്താണ്?	1. 1 2. 2-3 3. 4-5 4. 6+	
14	കുട്ടിയുടെ പ്രായം		
15	വീട്ടിലെ അംഗങ്ങളുടെ എണ്ണം എത്രയാണ്?		
16	കുട്ടിയുടെ വാക്സിനേഷൻ കാർഡ് നിങ്ങളുടെ പക്കലുണ്ടോ?	1. ശരി 2. ഇല്ല	

II. അഭിമുഖ ഗൈഡ്

1. വിവിധ വാക്സിനേഷനുകൾക്കായി ഡോക്ടർ മുൻകൂട്ടി നിശ്ചയിച്ചിട്ടുള്ള ഒരു ഷെഡ്യൂൾ ഉണ്ട്. എന്തുകൊണ്ടാണ് ഓരോ വാക്സിനേഷനും ഈ കാലയളവ് നിശ്ചയിച്ചിരിക്കുന്നത്? അതിനെ കുറിച്ച് പറയാമോ? വിവിധ വാക്സിനേഷനുകൾക്കായി ഡോക്ടർ മുൻകൂട്ടി നിശ്ചയിച്ച ഒരു ഷെഡ്യൂൾ ഉണ്ട്. വാക്സിനേഷനുകൾ ഓരോന്നിനും ഈ കാലയളവ് നിശ്ചയിച്ചതായി നിങ്ങൾ കരുതുന്നത് എന്തുകൊണ്ട്?

2. പതിവ് പ്രതിരോധ കുത്തിവയ്പിന്റെ പ്രാധാന്യത്തെക്കുറിച്ച് നിങ്ങളുടെ ഡോക്ടർ എന്താണ് ഉപദേശിച്ചത്?

3. നിശ്ചയിച്ചിട്ടുള്ള തീയതിയിൽ വാക്സിനേഷൻ നഷ്ടമായാൽ ഒരാൾ എന്തുചെയ്യണം?

4. നിശ്ചിത സമയത്ത് കുട്ടിക്ക് വാക്സിനേഷൻ നൽകിയില്ലെങ്കിൽ എന്ത് സംഭവിക്കും? വാക്സിനേഷൻ സമയത്ത് കുട്ടിക്ക് വാക്സിനേഷൻ ലഭിച്ചില്ലെങ്കിൽ എന്ത് സംഭവിക്കും?

5. നിങ്ങളുടെ കുട്ടിക്ക് വാക്സിൻ എടുക്കാൻ നിങ്ങൾ എവിടെ പോകും? വാക്സിനേഷന്റെ അവസാന തീയതി നഷ്ടപ്പെടാതിരിക്കാൻ നിങ്ങൾ എന്ത് നടപടികളാണ് സ്വീകരിക്കുന്നത്?

6. ആ സമയത്ത് നിങ്ങളുടെ കുട്ടിക്ക് പ്രതിരോധ കുത്തിവയ്പ് എടുക്കാൻ നിങ്ങളെ സഹായിക്കുന്നതിന് ആരോഗ്യ സംവിധാന പ്രവർത്തകരിൽ നിന്ന് എന്തെങ്കിലും ഉപദേശങ്ങളോ സംരംഭങ്ങളോ ഉണ്ടായിരുന്നോ?

7. കുട്ടിയോടൊപ്പം വാക്സിൻ സെന്ററിലേക്ക് പോകാൻ നിങ്ങൾ ചെയ്യേണ്ട കാര്യങ്ങൾ എന്തൊക്കെയാണ്? ഞാൻ ഉദ്ദേശിച്ചത്, നിങ്ങളോടൊപ്പം വരാൻ നിങ്ങൾ മറ്റുള്ളവരുടെ സഹായം തേടുന്നുണ്ടോ? ജോലിക്കാരായ മറ്റ് കുടുംബാംഗങ്ങൾക്ക് അവധി ലഭിക്കുന്നത് വരെ കാത്തിരിക്കേണ്ടതുണ്ടോ? മുതലായവ?

8. നിങ്ങളുടെ വസതിയിൽ നിന്ന് വാക്സിൻ സെന്റർ എത്ര ദൂരെയാണ്? നിയന്ത്രണങ്ങളുടെ കാലത്ത് നിങ്ങളുടെ ഗതാഗത മാർഗ്ഗം എന്തായിരുന്നു? കേന്ദ്രം സന്ദർശിക്കാൻ ശ്രമിക്കുമ്പോൾ എന്തെങ്കിലും പ്രശ്നങ്ങൾ നേരിടേണ്ടി വന്നിട്ടുണ്ടോ? കോവിഡ് പ്രോട്ടോക്കോളുകൾ മൂലമുള്ള നിയന്ത്രണങ്ങൾ ഇതിനെ എങ്ങനെ ബാധിച്ചു? ദയവായി അവ വിവരിക്കാമോ?

9. കുട്ടിക്ക് വാക്സിൻ എടുക്കാൻ നിങ്ങൾ എത്ര പണം ചെലവഴിക്കേണ്ടി വന്നു? ലോക്ക്ഡൗണിന് മുമ്പുള്ള നിങ്ങളുടെ മുൻ സന്ദർശനങ്ങളുടെ അതേ ചെലവായിരുന്നോ ഇത്? ഇത് ചെയ്യുന്നതിനുള്ള പണം നിങ്ങൾക്ക് എങ്ങനെ ലഭിക്കും?

10. നിങ്ങൾ വാക്സിൻ സെന്റർ സന്ദർശിച്ചപ്പോൾ, കുട്ടിക്ക് കുത്തിവയ്പ് നൽകുന്നത് എളുപ്പമായിരുന്നോ? എത്ര സമയമെടുത്തു? എത്ര പേർ ഇതിനകം അവിടെ ഉണ്ടായിരുന്നു? ആ സാഹചര്യത്തിൽ കോവിഡ് അണുബാധയുമായി ബന്ധപ്പെട്ട നിങ്ങളുടെ ആശങ്കകൾ എന്തൊക്കെയായിരുന്നു? നിങ്ങളുടെ കുട്ടിയുടെ പതിവ് പ്രതിരോധ കുത്തിവയ്പ് സംബന്ധിച്ച് ആരോഗ്യ പ്രവർത്തകരിൽ നിന്ന് നിങ്ങൾക്ക് എന്ത് ഉപദേശം ലഭിച്ചു?

കൂടുതൽ വിശദീകരണങ്ങൾ ആവശ്യമാണെങ്കിൽ, എനിക്ക് നിങ്ങളെ ഫോണിലൂടെ (മൊബൈൽ) വിളിക്കാമോ?

അതെ/ഇല്ല
ഉണ്ടെങ്കിൽ, ബന്ധപ്പെടാൻ നമ്പർ രേഖപ്പെടുത്തുക.

നിങ്ങളുടെ വിലയേറിയ സമയത്തിന് നന്ദി!

ANNEXURE - XIII

ഇൻഡെപ്ത് ഇന്റർവ്യൂ ഗൈഡ് ഹെൽത്ത് സിസ്റ്റം ഫങ്ഷണറികൾക്കും എൽഎസ്ജിഐ സ്റ്റേക്ക്ഹോൾഡർമാർക്കും

നമസ്കാരം . ഞാൻ ഡോ. അലിഷ ഖാൻ, നിലവിൽ തിരുവനന്തപുരം, ശ്രീ ചിത്ര തിരുനാൾ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഫോർ മെഡിക്കൽ സയൻസസ് ആൻഡ് ടെക്നോളജിയിലെ അച്ചുത മേനോൻ സെനർ ഫോർ ഹെൽത്ത് സയൻസ് സ്റ്റഡീസിൽ, മാസ്റ്റർ ഓഫ് പബ്ലിക് ഹെൽത്ത് കോഴ്സ് പഠിക്കുന്നു. എൻറെ കോഴ്സ് പ്രവർത്തനത്തിൻറെ ഭാഗമായി, "പകർച്ചവ്യാധി സാഹചര്യവുമായി ബന്ധപ്പെട്ട സാഹചര്യങ്ങളിൽ, 2020-21 ൽ തിരുവനന്തപുരം ജില്ലയിൽ മൂന്ന് വയസ്സിന് താഴെയുള്ള കുട്ടികളുടെ പതിവ് പ്രതിരോധ കുത്തിവയ്പ്പ് സമയക്രമത്തിന് തടസ്സങ്ങൾ" എന്ന തീനെ കുറിച്ചുള്ള ഒരു പഠനം ഞാൻ നടത്തുന്നു. ഈ പഠനത്തിൽ പങ്കെടുക്കുന്നതിന് സമ്മതം നൽകിയിട്ടുള്ളതിനാൽ, ഞങ്ങൾ ഇപ്പോൾ ആരംഭിക്കും. ഈ അഭിമുഖത്തിന് 20-30 മിനിറ്റ് എടുക്കും.

Code No.	Variable	Responses			
R1	Health System ID				
R3	Health system worker ID				
R2	Date of Interview	dd	mm	yy	
R3	Start time	hh	mm	am/pm	
R4	End time	hh	mm	am/pm	
R5	Number of visits made to complete the interview				

I. പശ്ചാത്തല സവിശേഷതകൾ

- നിങ്ങളുടെ നിലവിലെ സ്ഥാനത്ത് എത്ര വർഷമായി നിങ്ങൾ ജോലി ചെയ്യുന്നു?
- നിങ്ങളുടെ റിക്രൂട്ട്മെന്റ് തരം എന്താണ്?
സ്ഥിര / താൽക്കാലിക
- അവലോകന യോഗത്തിനായി നിങ്ങൾ എത്ര തവണ നിങ്ങളുടെ സൂപ്പർവൈസർമാരെ കാണും?

II. അഭിമുഖ ഗൈഡ്

1. കുട്ടികളുടെ പതിവ് പ്രതിരോധ കുത്തിവയ്പ്പ് പ്രോഗ്രാമുമായി ബന്ധപ്പെട്ട നിങ്ങളുടെ കടമകൾ എന്തൊക്കെയാണ്? കുട്ടികൾക്കുള്ള പ്രതിരോധ കുത്തിവയ്പ്പ് ഒരു പ്രധാന പൊതുജനാരോഗ്യ പരിപാടിയായിരിക്കുന്നത് എന്തുകൊണ്ട്?

2. 2020 മാർച്ചിൽ കോവിഡ് ലോക്ക് ഡൗൺ പ്രഖ്യാപിച്ചപ്പോൾ പ്രതിരോധ കുത്തിവയ്പ്പ് സംവിധാനത്തിൽ താൽക്കാലിക നിയന്ത്രണം ഉണ്ടായിരുന്നു. അത് പുനരാരംഭിച്ചപ്പോൾ പ്രോഗ്രാമിനെ എങ്ങനെ ബാധിച്ചു? ലോക്ക് ഡൗൺ കാലയളവിൽ വാക്സിനേഷൻ എടുക്കാൻ നിശ്ചയിച്ചിരുന്ന എല്ലാ കുട്ടികളും ഡോസേജിന്റെ സമയം നിലനിർത്തിയോ?

3. ആ സമയങ്ങളിൽ കുട്ടികൾക്കുള്ള പ്രതിരോധ കുത്തിവയ്പ്പ് പരിപാടികൾ കൈകാര്യം ചെയ്യുന്നതിന് എന്തെങ്കിലും നടപടികൾ സ്വീകരിച്ചിരുന്നോ? അവ വിവരിക്കാമോ? നിങ്ങളുടെ അഭിപ്രായത്തിൽ, നിശ്ചിത തീയതികളിൽ കുട്ടികൾക്ക് പ്രതിരോധ കുത്തിവയ്പ്പ് എടുക്കുന്നതിന് അക്കാലത്ത് വന്ന തടസ്സങ്ങൾ എന്തായിരിക്കാം?

4. ഏതെങ്കിലും സമയത്ത് വാക്സിൻ ക്ഷാമം പ്രശ്നം ഉണ്ടായിരുന്നോ? ഈ കാലയളവിൽ പ്രതിരോധ കുത്തിവയ്പ്പ് പ്രോഗ്രാമുമായി ബന്ധപ്പെട്ട് നിങ്ങൾ നേരിട്ട പ്രശ്നങ്ങൾ എന്തൊക്കെയായിരുന്നു?

5. ആ സമയത്ത് കുട്ടികൾക്ക് പ്രതിരോധ കുത്തിവയ്പ്പ് നൽകുന്ന ജോലി തുടരുന്നതിൽ ആരോഗ്യ പരിചരണ പ്രവർത്തകർ അനുഭവിച്ച പ്രശ്നങ്ങൾ എന്തൊക്കെയായിരുന്നു? എല്ലാ വ്യക്തികൾക്കും ജോലിക്ക് വരാൻ കഴിയുമായിരുന്നോ? അവർക്ക് എങ്ങനെ ജോലി തുടരാൻ സാധിച്ചു?

6. എല്ലാ കുട്ടികൾക്കും വാക്സിനേഷൻ ലഭിച്ചുവെന്ന് ഉറപ്പാക്കാൻ എന്ത് അധിക മുൻകരുതലുകൾ എടുത്തു?

കൂടുതൽ വിശദീകരണങ്ങൾ ആവശ്യമാണെങ്കിൽ, എനിക്ക് നിങ്ങളെ ഫോണിലൂടെ ബന്ധപ്പെടാനും വിശദീകരണങ്ങൾ നേടാനും കഴിയുമോ?
അതെ/ഇല്ല.
ഉണ്ടെങ്കിൽ, ബന്ധപ്പെടേണ്ട നമ്പർ ശ്രദ്ധിക്കുക.

നിങ്ങളുടെ വിലയേറിയ സമയത്തിന് നന്ദി!



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेन्द्रम
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Institutional Ethics Committee

(IEC Regn No. ECR/189/Inst/KL/2013/RR-21)

SCT/IEC/1811/JANUARY/2022

02.03.2022

Dr. Alisha Khan

MPH Student, AMCHSS

SCTIMST, Thiruvananthapuram

Dear Dr. Alisha Khan,

The Institutional Ethics Committee held on 5th February, 2022, reviewed and discussed your application to conduct the study titled "BARRIERS TO TIMELINESS OF ROUTINE IMMUNIZATION FOR CHILDREN UNDER THREE YEARS OF AGE IN THIRUVANANTHAPURAM DISTRICT IN 2020-21, DURING THE CONDITIONS ASSOCIATED WITH THE PANDEMIC SITUATION" (IEC/1811)".

The following members of the Ethics Committee were present at the meeting held on 5th February, 2022.

SL. No.	Member Name	Highest Degree	Gender	Scientific /Non Scientific	Affiliation with Institution(s)
1.	Smt. Sathi Nair	MA (English Literature)	Female	Lay Person	No
2.	Dr. Pradeep S	MBBS, MD	Male	Basic Medical Scientist	No
3.	Adv. Priya Kaimal	LLM, MBL	Female	Legal Expert	No
4.	Dr. Manikandan.S	MBBS,MD,PDCC	Male	Clinician	Yes
5.	Dr. Narayanan Namboodiri. K K	MBBS,MD,DM	Male	Clinician	Yes
6.	Dr. Biju Soman	MBBS,MD, DPH, MSc, DLSHTM	Male	Basic Medical Scientist	Yes
7.	Dr. Srinivas G	PhD	Male	Basic Medical Scientist (Member Secretary)	Yes

The following documents were reviewed:

Original submission

1. Checklist Form
2. Covering letter addressed to the Chairperson, IEC, SCTIMST dated 11.01.2022
3. Responses/Amendments made based on the Reviewer's comments
4. IEC Application Form
5. Research Proposal
6. Questionnaire in English and Malayalam
7. Research Subject Information Sheet and Informed Consent in English and Malayalam
8. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
9. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
10. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
11. Letter addressed to the Panchayath President, [REDACTED], Thiruvananthapuram dated 05.01.2022
12. CV of Principal Investigator and Guide
13. Declaration Form
14. SRC Recommendation

Revised submission

1. Covering letter addressed to the Member Secretary, IEC, SCTIMST dated 25.02.2022
2. Checklist Form
3. Responses/Amendments made based on the Reviewer's comments
4. IEC Application Form
5. Research Proposal
6. Questionnaire in English and Malayalam
7. Research Subject Information Sheet and Informed Consent in English and Malayalam
8. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
9. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
10. Permission letter from [REDACTED] Grama Panchayat, Thiruvananthapuram
11. Letter addressed to the Panchayath President, [REDACTED], Thiruvananthapuram dated 05.01.2022
12. CV of Principal Investigator and Guide
13. Declaration Form

IEC Decision

The IEC approved the conduct of the study in the present form.

Remarks:

The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study, any changes in the protocol and patient information/informed consent and asks to be provided a copy of the final report.

There was no member of the study team / Guide who participated in voting / decision making process. The ethics committee is organized and operated according to the requirements of Good Clinical Practice and the requirements of the Indian Council of Medical Research (ICMR).

Sincerely,



Dr. G. Srinivas
Member Secretary, IEC



MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE (IEC)
SCTIMST, THIRUVANANTHAPURAM