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AN URBAN PRIMARY HEALTHCARE DELIVERY SYSTEM

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ABSTRACT

With this study, we aim to look at the Mohalla Clinics of Delhi as a model of a primary health care system in Delhi's urban fabric. This study will uncover the contributions of this particular model concerning primary healthcare and try to establish the importance of Primary Health Care in an urban scenario. The secondary research data comprises of research papers and newspaper articles that follow the history and issues surrounding Mohalla Clinics and delivery mechanisms. The primary data comprises of on-site interviews, surveys, photography, videography and architectural documentation. Based on the data collected, we have a comprehensive understanding of the clinics as an individual entity and the collective role that they play in the larger context. We undertook an analysis to understand how the Mohalla Clinic model is effective as an urban primary health care system, and how every clinic works as a self-contained cuboid providing healthcare services to people. Consequently, we have been able to establish the various factors affecting this healthcare model and their direct relation with different levels of healthcare delivery systems. The larger implication of this study can be envisaged as to how this model has helped in improving Primary Health Coverage across the city.

Keywords: Primary Health Care, Healthcare Delivery System, Universal Health Franchise, Promotive and Preventive Healthcare

1. INTRODUCTION

1.1. OVERVIEW

Primary health care, abbreviated as PHC, refers to essential health care that ensures the best possible wellbeing of a person, focussing on their physical, mental and social health. (World Health Organisation, 2018) PHC addresses health beyond traditional health care systems and aims at the prevention of disease before the treatment. Based on the recognition that basic health services are one of the fundamental rights of every human being, it includes all, ranging from prevention to treatment, health promotion, rehabilitation and palliative care, states WHO.

Indian Healthcare is experiencing a wave of transition in terms of epidemiological, demographical, environmental, financial and social aspects. (Tandon, et al., n.d.) Primary health care in India is considered to be the first point of medical access for a person, through sub-centres and primary health centres (PHCs) and community health centres (CHCs). (Team, 2018) Our curiosity led us to explore the primary healthcare modules in Delhi, with a primary focus on Mohalla Clinics.

This paper shall thus cover an in-depth study on the working of Mohalla Clinics, their contribution to the overall health scheme on Delhi, and their existence in the urban primary health scenario with comparative studies of other health models in the world, trying to achieve the same. Our paper has covered data sets in the form of:-

1) **Government sourced articles including**
   - Brief Write-Up on the Aam Aadmi Mohalla Clinics
   - Central Delhi District: Delhi (NCT).
   - National Capital Territory of Delhi- The percentage of slum population to the total population.
   - State UT wise functioning of primary health centres as on 31st March 2017
2) **News articles**
   - Data from the WHO including
   - Definition of primary Healthcare
   - Definition of Universal Health Franchise
   - Primary Healthcare for Older people

3) Site data documented in the form of photographs, notes, architectural drawings, videos
4) Research papers and other support literature

Our study was primarily based on an extensive on-site survey, which allowed us to get a detailed understanding of this model. Our site questionnaire covered the following:-

1) What is the O.P.D. timing?
2) What is the sample collection timing?
3) Is there any referral hospital?
4) What is the daily footfall of patients?
5) How many staff members work here?
6) Who funds the medicines?
7) Is there any linked dispensary?
8) What is the ratio of follow up patients and new patients?
9) Which are the major common diseases observed?
10) About the doctor's history?
11) How do they dispose of the waste?
12) Is the clinic a single shift or a double shift clinic?
13) Number/ Names of tests available at Mohalla Clinics
14) Expected/ Actual number of people visiting Mohalla Clinics daily
15) How many doctors/ nurses/ technicians/ attendants are working in the clinics? How many of them have got employment through this initiative?
16) What about the remaining clinics which haven't been opened yet?
17) What about the Mohalla Clinics and their objectives as a consequence of 2020 Delhi Gov. Elections?
18) Goals/ objectives of the Mohalla Clinics- How many of them have met their requirements and how many haven't? Why?
19) Financial Structure- where does the funding come from? What amount of money is allocated to a Mohalla clinic? How much of this money is spent on construction, staffing etc.?
20) What type of population is targeted at the clinics? Is there any restriction on financial status to avail the treatment at the clinics?

21) Awareness programmes- Mohalla Clinic's contribution
22) In how many years are they trying to achieve their goals in an ideal case scenario
23) How many clinics are operational out of the listed 189
24) On what parameters are the doctors recruited
25) How did the idea behind these arise?
26) Why are some of the built clinics not functional
27) On what factors is the location exactly determined
28) Basic proposed layout/ expected no. of amenities from every clinic
29) No of AAMCs proposed in each zone/ existing
30) Criteria for deciding the typology of Mohalla clinic
31) Number of Mohalla clinics which are functional
32) On what basis are patients referred?

These aspects were not only studied on-site but also verified with the help of primary data and literature available to us. The answers to a lot of these questions helped us study generic aspects, but also helped us orient our research in a few directions. Firstly, this could help in understanding the primary health care module at the community level in the urban context. By taking cues from this healthcare system, different healthcare systems across the country could improvise their existing way of functioning, and adapt better to regional and local demands. This could, in turn, make their functioning more effective, as the majority would look up to systems providing more personalised healthcare. Secondly, this could help find, how the clinics are contributing to a higher level of the healthcare system. This could be attributed to the interdependency of the clinics as a tier on other tiers of the system.

2. BACKGROUND AND SIGNIFICANCE

The model of the Clinics was conceptualised to serve people from all walks of life, including the un-served and under-served areas, particularly in Jhuggi- Jhopri Clusters, slums, unauthorized colonies, densely populated areas, and rural areas where the poor and vulnerable population have less or no access to the primary health care services within their reach. (Anon., n.d.) The initial model was designed keeping in mind, that there should be one clinic within every 5 kilometres, each clinic catering to a population of 10000-15000. (Lahariya, 2017) Each clinic was slated to witness around 120 patients in 4-6 hours a day. They were visualised to be a self- contained insulated unit with an area of 50-60 square metres, in a porta-cabin or rented structure. They provide 212 tests and 109 medicines, all free of cost, covering a wide range of primary level healthcare, accessible to all. (Anon., 2019) 4 staff members, namely, a Doctor, Pharmacist, Mohalla Clinic Assistant (MCA) and Multi-Task Worker (MTW) are required to be present in every clinic.

An extensive on-site study was conducted to understand the working aspects of the clinics further. For the tests, the samples are collected at the Mohalla Clinics from 9 am to 11:15 am approximately, and are then taken to the Uni-Path Lab in Lajpat Nagar, for testing. The timings chosen for the same are due to two reasons,

Firstly, most of these tests are to be undertaken empty stomach, for which, this timing is suitable. Secondly, the samples collected cannot be stored for long, as a consequence of which, they need to be transported immediately.

The delivery man collects the samples from all the Mohalla Clinics of his assigned zone and takes them to the lab, which is the same for all the clinics across Delhi. Samples here are tested and the reports are provided the next day, alongside the collection of new samples. The cycle goes on.

For the Waste Treatment, SMS Water Grace BMW Private Limited Delhi provides the clinics with bins and takes charge of waste disposal. It provides waste collecting vehicles and facilitates movement to treatment plants. At the treatment plant, this waste is incinerated or chemically disinfected. These wastes are then disposed of as per the Ministry of Environment and Forests, Central Pollution Control Board & Delhi Pollution Control Committee Guidelines.

The Delhi government has a set budget for the Mohalla Clinics. As per 2018-19, the budget allocation for the clinics was Rs.150 crore. This was made Rs.206 Crore for the period of 2019-2020. As per media reports, the collective budget for polyclinics and Mohalla Clinics for this year has been made Rs.375 Crore.

For their functioning, the clinics procure the required equipment and items, which are paid off for, by the Chief District Medical Office i.e. CDMO Office. There is one CDMO Office for every zone, and there are 11 zones in all.

For the rented clinics, the rent as per budget restrictions has been set to Rs.20000 per clinic per month. And, for the setting up of a fully functional Porta Cabin Clinic, a one-time expenditure cost of Rs.20 Lakh is required.

As far as the payments of the staff are concerned, the staffs are paid depending on the number of patients treated. So if the clinic receives X numbers of patients every day, the doctor shall receive X x 40, the pharmacist X x 12, the Mohalla Clinic Assistant X x 10 and the Multitask worker X x 8 rupees for that day. If the patient count is less than 75, the government shall pay them for 75 patients per day.

This model was initiated as a response to the growing need for a basic, primary level healthcare scheme, which till 2015, only existed in the form of dispensaries. It not only catered to the Primary Health Care Requirements but was also an attempt to provide Universal Health coverage to all. As per the World Health Organisation, Primary Health Care (PHC) covers promotive, protective, preventive, curative, rehabilitative, and palliative care throughout life address the broader determinants of health (including socio-economic, environmental, as well as people's characteristics and behaviours) through evidence-informed public policies and actions across all sectors and empowers individuals, their families, and various communities to optimize their health with the help of awareness programmes and door to door healthcare. (World Health Organisation, 2018) The Universal Health Coverage (UHC) covers all the goals of PHC, given that they are met without any financial hardship to the users.

The Mohalla Clinics not only provide free of cost healthcare services but also offer convenience and feasibility due to their small scale and neighbourhood-level presence. Patients now no longer need to go far and wait in long queues for basic health check-ups. The need for community-level healthcare services has been met with clinics in close proximity that offer more approachability and accessibility. This model has also shown flexibility and adaptability to context, with clinics and their services highly getting influenced by their surroundings, their crowd and their location.

3. TIMELINE

The coming up of Mohalla Clinics has been a steady process of hard-work by numerous people in 4-5 years. The first-ever Mohalla Clinic came up in Peeragarhi in July 2015, and by March 2016, 100 new clinics were inaugurated. Kejriwal then promised the coming up of 1000 Mohalla clinics in the city in his June 2016 manifesto. By August 2016, around 8 lakh people had availed services at the clinics and around 43000 tests had been undertaken. (Anon., 2019) In September 2017, the project was approved by the Lieutenant Governor of Delhi. As of March 2019, 191 clinics were functional in the city. Until this time, 1.62 crore patients availed treatment at the clinics and 15.3 lakh tests had been conducted, which means that an annual average of 44.3 lakh patients are treated per year. (Anon., 2019) But as per statistics, 56 lakh people were treated alone in the last one year, i.e. from March 2018 to March 2019. This graph has been going up with the Mohalla Clinics becoming more popular, accessible and available to people with time. As of September 2019, 221 clinics were functional in the city and as of October 2019, there exist 302 clinics in all in the city of Delhi. (Chawla, 2018) (Mishra, 2019)

4. LITERATURE REVIEW

Our study on Primary Healthcare was based on the following theories:-

1) HEALTH MODEL OF IRAN

Iran's primary healthcare model has substantially improved over the past thirty years and is one of the best. The public health indicators of the country have improved significantly since their PHC program was introduced. Their system of healthcare centres includes a hierarchy of rural health centres, urban health centres, district health centres, district general hospitals. (O'Foran, 2018)

There is approximately one health centre for every 7,000 residents, which constitutes physicians and health technicians, and administers urban-rural differences in major, basic public health indicators, such as neonatal mortality rates and infant mortality rates, have nearly been eliminated due to the success of the Primary Health Network.

Iran had been lagging in the rural healthcare centres and has thus improved significantly in that field as well.

Iran performed a cross-sectional and descriptive-analytical study to determine the factors which affect the establishment of health-promoting hospitals. The study included the setting up of a project implementation team and a health-promoting hospital committee (HPH). A conceptual model of HPHs was formed on the guidelines of the WHO and a questionnaire was designed to determine the main factors affecting healthcare promotions.

The results from the study indicated towards six major establishments which directly respond to the behaviour of healthcare facilities:

- Society and Community-their needs
- Policies implementing health projects
- Management
- Dissemination
- Technique- appropriate structure-w.r.t the place and society the program is set up in

Evaluation-monitor the growth-process

The results of the present study showed that paying attention to six dimensions for establishing an HPH is essential among which the most and least important ones were Society and Community Assessment and Management, respectively. (MEHRDAD, 2009)

2) HEALTH MODEL OF CANADA

Canada's healthcare system also follows a hierarchical system at federal, provincial and territorial level. (Anon., n.d.)

- Primary health care services- community health centres, at home
- Secondary health care services- hospitals, can also be provided at home and community level
- Tertiary healthcare services

The roles of the provincial and territorial governments in health care include:

- Administration of their health insurance plans; -policies
- Planning and funding of care in hospitals and other health facilities; -management
- Services provided by doctors and other health professionals;
- Planning and implementation of health promotion and public health initiatives - technique; and
- Negotiation of fee schedules with health professionals. – dissemination

5. HEALTH MODEL OF CUBA

Cuba stands 39th on the World Health rankings by WHO as compared to India, which ranks 112th. Cuba has the world's one of the most effective primary healthcare systems, whose centrepiece is the community-based polyclinic. Each of these serves a catchment area hosting between 30,000 and 60,000 people. The neighbourhood-based family doctor-and-nurse offices further extend care closer to the communities. Each office works for 1,000-2,000 people. (Tandon, et al., n.d.)

The Mohalla Clinic model has some aspects common to all of these models, and these models offer something from which the Primary Healthcare system of India can learn.

6. WORK THUS FAR

A health model in the urban context of Delhi that provides free consultation, free tests and free medicines at your doorsteps excites us as researchers to want to know more about such a health model, and the working dynamics of such a model. The possible catalysts to our study are the direct relation between these clinics and upper level of health care delivery system, as to what direct impact they could have as a health model. The way every clinic is so unique in this own way and responds to its very own context is interesting. We as individuals are interested in studying this uniqueness of these clinics despite them being parts of the larger system and thus help us formulate a comprehensive list of factors affecting these clinics by large. The fact that all of this is a Government set up and requires permissions at various levels to access the minutest of data, the same requires an enormous amount of time. This factor played a role in dragging our

research in terms of its wholesomeness. We were motivated and enthusiastic about various aspects of this health model but certain constraints have limited use with the accomplishment of all our aims.

The plan was initially to study as many clinics as possible, to interact with the users and service providers, to understand the working mechanism of these clinics. We followed a scheme of study that holistically combined our documentation along with the user experience, and comprised in-depth studies and extensive site visits in an order as mentioned below.

- Primary data Collection
- Literature study
- Nearby site visits to understand the basic structure and working of a Mohalla Clinic
- Looking into different schemes related to primary health care
- Site selection and site justification
- Mohalla Clinic site visits in the Central Zone of Delhi
- Interviews and interaction with the users and staff
- Data Analysis based on on-site surveys

We as a bunch of fourth-year Architecture students, feel the urge to understand this health model and analyse a model of such stature. We, therefore, have an understanding of quite a lot of aspects such as infrastructural, administrative, technical aspects etc. which helps us look at the model from an angle different to that of a layman. We have a technical know-how of similar models and are inquisitive about studying a model which has been gaining more acclaim every passing day, which motivates us to work further and understand the topic in detail.

As architecture students, our scope and understanding of the study gets limited to spatial analysis, administrative structure, contextual study etc., and we may not be able to explore, study or question other aspects, for instance, a medical analysis of the clinics. Our analysis, therefore, tends to be biased and may not be equally valid in other domains of the study.

Our documentation of the ten clinics we've visited till now covers an exhaustive list of aspects studied at these clinics and offers a base to the rest of our study.

7. PILOT STUDIES

In the course of figuring out our site and getting an overview of our clinics and health model, we had undergone the visiting of a few visits as our pilot studies. Initially, to get a basic understanding of these clinics and familiarising with them we had picked up the East zone and visited a few clinics there. Amongst the few clinics we visited, one amongst them was the busiest and oldest clinics of the East Zone, which was the clinic at Trilokpuri. It was a small clinic-based out in a rented accommodation in a community. We then met a person who walked us through his daily routine and helped us understand the technical aspects of the clinics even better. It was then that we figured out for ourselves, how these clinics sit in the urban fabric, how they form a part of this city, and this eventually gave us clarity on how to proceed in terms of site selection, and take our study further.

We have a table to summarise the observations of these studies.

PILOT STUDIES

S. No	Location	Open Since?	Any Proximate Landmark	Operational?	Working Hours	Staffing	Infrastructure Provisions	Facilities/ Tests	Referral At?	Nearby Transport Hub	Typology	Awareness Programmes	NGOs
1	Block-D, West Vinod Nagar (Patparganj)	3-4 years	Market at Walking Distance	Yes	8am-2pm	1 Doctor 1 Attendant	• Waiting area for 5	Medicines provided and basic tests conducted for free	Govt. hospital nearby	Metro station at around 1 km	Permanent (brick masonry structure)	World Population Day Programmes	
2	Lakshmi Nagar (Lakshmi Nagar)	3 years	CPA Building	Yes	8am-2pm	1 Doctor 1 GNM 1 ANM	• Waiting area for 6 • Water dispenser • Toilets	Medicines provided and basic tests conducted for free	Govt. hospital nearby	Metro station at around 1 km	Permanent (brick masonry structure)	-	Yes, kids from NGOs are also brought up for regular check ups
3	West Vinod Nagar (Patparganj)	1 month	Mandavali West Metro station	Yes	8am-2pm	1 Doctor 1 attendant	• air conditioned waiting area • Water dispenser • Toilets	Medicines provided and basic tests conducted for free	Govt. hospital nearby	Walking distance from metro station	Permanent (brick masonry structure)	-	
4	Trilok Puri, block 25 (Trilok Puri)	4 years		Yes	8am-2pm	2 doctors	• Waiting area • Water dispenser • Toilets	Medicines provided and basic tests conducted for free	Govt. hospital nearby		Permanent (brick masonry structure)	Regular polio awareness programmes	
5	Metro pillar 232, Sarita Vihar (Okhla)	1 Year	Appolo hospital	No	-	-	-	-	-	Jasola Apollo Metro station	Temporary	-	-

8. METHODOLOGY

Our study started with a cyclic process of literature study and data collection followed by site visits and subsequent literature study to verify site data. Our literature study comprised descriptive reviews, research papers, news articles and government policies. Our on-site study included interviews with

- Interviews with the common man (the user)
- Interviews with the Organiser (the service provider)
- Interviews with the staff working at the clinic

Our initial studies started with understanding the need for this research and the need for answering generic questions such as

1) What is the status of the Mohalla Clinic scheme in Delhi?
2) How aware are people about Mohalla Clinics? What direct implications does it have on the model of Mohalla Clinics as a Health Care delivery system?
3) How responsive are Mohalla Clinics w.r.t their neighbourhoods?
4) Can the model of Mohalla Clinics in Delhi be seen as a component of Primary Healthcare Systems in the larger context?

To understand the phenomena even better, we narrowed ourselves to a particular district in the whole of Delhi and deciphered certain parameters for the same. We selected Central Delhi as a zone. This zone has solely 21 sq. km of the urban area with a population of 582320, with a sex ratio of 892 and a population density of 27730. (Anon., 2017) It

houses 3.5% of the total population of Delhi. It houses a few regions with 60% of its population in slums and has 13 clinics to serve the same. (Anon., 2011) It has 7 Assembly Constituencies and 1 Lok Sabha Constituency. (Anon., 2017) The Central Delhi Zone has more than 60% of its population living in slums as per the Census 2011, and therefore understanding the functioning of Mohalla Clinics in this is relevant concerning the aims and objectives of this project.

Amongst the Clinics we visited, Exhaustive surveys were conducted for the points mentioned below, both in and around the Mohalla clinics. The data has been given below as a table, and some general aspects mentioned thereafter.

1) Typology
2) O.P.D. timings
3) Referral hospitals
4) Double shift/ single shift
5) Demographics of patients
6) Daily footfall
7) Sample collection timings
8) Measures for infection control
9) Staffing pattern
10) Most common diseases amongst the patients
11) Number of operational years
12) Location and any proximate landmark
13) Link dispensary
14) Nearby transport hub
15) Ngo collaborations/ awareness programmes
16) Measures undertaken for infection control
17) Any prominent on-site feature/ landmark and its contribution to the working of the clinics
18) Location of the labs for sample collection
19) Segregation and disposal of waste
20) Ratio of follow up patients to new patients
21) Doctor's status (present, past) & years of experience
22) Number of years of functioning of AAMC
23) Date from which it started operating in double shifts
24) Storage provisions for the samples collected
25) Whether there's any restriction on the people allowed to avail treatment
26) Any collaborations with NGOs/ ASHA workers/ health workers
27) Interior layout with dimensions
28) Posters present on notice boards
29) Location on maps
30) Timings/ frequency of patients etc.

We selected three Mohalla Clinics in this zone and understood the typology of the three. We attempted to study zoning, spatial layouts, iterations of the arrangement of spaces, and the effect of context on the working of the Mohalla Clinics.

The first one is AAMC Yamuna Pushta Rainbassera. It is a rectangular Porta Cabin Clinic. The second one is the AAMC Aram Bagh. It is a linear Porta Cabin Clinic. The third one is AAMC Wazirabad, a rented clinic.

The clinics exist in two kinds of structures, namely, porta cabins and rented structures. The porta cabins are cuboidal structures that have been customized as per the needs and requirements of the set-up. They are temporary and flexible and have a modular nature. Due to their stand-alone structure, they're easily identifiable and have an identity and language of their own. However, they face certain challenges while being set up, which include the laying of sewer lines, the existence of low-hanging electricity lines and so on.

The Rented clinics exist in permanent structures. These clinics are subject to availability and hence there is less or no scope of customization. They're quite often not as easily identifiable as the porta cabin clinics due to their being setup in already existing structures. They often blend in with the locality, and can be tough to find, especially when they're; located in galis and by lanes.

Amongst the Porta Cabins as well, we have encountered two types of Cabins. They are Linear, and Rectangular, based on the aspect ratio of their dimensions, and have similar areas.

The long and linear clinics are often seen on footpaths or pavements, as in the case of AAMC Aram Bagh. The rectangular clinics are accessible through galis or service roads, as in case of AAMC Yamuna Pushta Rainbassera.

We carried out this research keeping ethical conundrums in mind. Firstly, our research is independent and impartial to any political practices and is solely based upon the functioning of clinics and analysis drawn from our surveys and studies. The confidentiality and anonymity of all 13 doctors and respective staff members (our research respondents) from each clinic in central Delhi have been maintained during site surveys and interviews. No videography or audio recording has been done without any consent from the respective authorities during the visits to Mohalla Clinics. The participants were informed about the purpose of the study and how their responses are going to help analyse and draw inferences for the study.

OBSERVATION TABLE

S. no.	**Assembly Number**	**Assembly name**	**Name of AAMC**	**Typology**	**O.P.D. Timings**		**Demographic details of patients (if any)**	**Infection Control**	**Daily Footfall**	**Remarks**	**Staffing**	**Diseases**	**Open Since**		**Link Dispensary**	
														Any proximate land mark		**Near by Transport Hub**
						Referral Hospital										
1.	2	Burari	Mohalla Clinic Nathupura: - Budh Bazar Road, Nathupura, Burari, Delhi	Porta Cabin	-	-	-	-	-	-	-	-	-	-	-	-

2.	2	Burari	AAMC Wazirabad Khasara No -120, Gali No-17, Main Road, Wazirabad, Delhi.	Rented	8am – 2pm / 1pm – 7 pm	Any Govt. Hospital	70% female	-	150 (day)	-	3 (MCA not there)	Fever	Eve shift started in January 2019	Open sewer nearby,	Jagatpur	-
							30% male		40-50 (eve)			Skin Infection		National Highway close by		
												Diabetes				
3.	2	Burari	AAMC Shashtri Nagar L-74, Shiv Watika Chowk, Shastri Nagar, Delhi-52	Rented	-	-	-	-	-	-	-	-	-	-	-	-
4.	2	Burari	Takia Chowk Chopal, Burari Village, Delhi	Rented	8am – 2pm / 1pm – 7 pm	RML Hospital	-	-	150 (day)	-	3 (MTW not there)	Fever	Eve shift started in August 2018	Below post Office	Nathupura	-
									150 (eve)			Skin Infection				
5.	3	Timarpur	AAMC Aruna Nagar E-28, Aruna Nagar, Majnu Ka Tila, Delhi.	Rented	-	-	-	-	-	-	-	-	-		-	-
6.	18	Model Town	AAMC Sindorakalan Opposite nav bharti school sindorakalan, Delhi	Porta Cabin	8am – 2pm / 1pm – 7 pm	Deen Bandhu Hospital	-	-	100 (day)	5-7 peak time	2 (Pharmacist and MTW not there)	Scabies	2-3 years	Opp. A school	Gulabi bagh	-
									100 (eve)	Less patients on		Fungal Infection				

										Saturdays						
												Fever				
												CPOD				
7.	18	Model Town	AAMC Kamla Nagar Oppsite Primary School Madavaliya School, Kamla	Porta Cabin	8am – 2pm / 1pm – 7 pm	Deepchand Bandhu/ Aruna Asaf Ali Hospital	-	-	100 (day)	Monday and Saturday are more crowded.	3 (MTW not there)	Fungal Infection	3-4years ago	Opp. A school, Bus stop Near by	Gulabi bagh	Bus Stop
			Nagar, Delhi 07						250 (eve)			Conjuctivitus				
												Diarrheoa				
												URI				
8.	19	Sadar Bazaar	Below Metro Near Sai Mandir AC-19 Sadar Bazar	Porta Cabin	-	-	-	-	-	-	-	-	-	-	-	-
9.	20	Chandni Chowk	AAMC Yamuna Pushta Rain Basera Yamuna pusta AC-20 Chandi chowk	Porta Cabin	8am – 2pm	LNJP Hospital	Mostly people from nights helters, nearby vendors, construction workers, riksha w pullers	No Fumigation	60-80	-	4	Fungal	2.5 years	-	-	-
						Aruna Asaf Ali Hospital						Gastroen				
						Hindurao Hospital						All types of infections				
												Typhoid (this year because of flood)				

												Dengue (last year)				
												Diabetes				
												Thyroid				
												Blood Pressure				
												Bronchitus				
10.	20	Chandni Chowk	AAMC Hanuman Mandir Rain Basera,Hanuman Mandir, ISBT, Delhi.	Porta Cabin	8am – 2pm	LNJP Hospital	Mostly from Night shelters, homeless people and few temple worshipers and from a residential community nearby	Fumigation after 10 days	100 - 120	Tuesday, Saturday - temple visitors (more crowd)	4	Fungal Infection	3 yeas rs	Hanuman Mandir	Gali-Guliyan Dispensary (near Jama Masjid)	Bus Stop
						Arun a Asaf Ali Hospital						Abdominal pains				
						Hindurao Hospital						Fever				
11.	23	Karol Bagh	AAMC Multani Dhanda Plot no.9857-59, gali no.5/6, Mutani Dhanda , Paharganj	Porta Cabin	8am – 2pm / 1pm – 7 pm	Lady Hardinge	-	-	200 (day)	-	4	-	-	-	-	-

						RML Hospital			80 (eve)							
12.	23	Karol Bagh	AAMC Aram Bagh Near Centeral Park Aaram Bagh Road, Delhi-05	Porta Cabin	8am – 2pm	Any Govt. Hospital	-	-	180 - 200	-	4	Hypertension	-	-	-	
												Diabetes				
												Skin Problems				
13.	23	Karol Bagh	AAMC, Khalsa College, Karol Bagh	Porta Cabin	8am – 1pm	RML Hospital	-	-	150	-	4	-	2 years	-	-	-
						Joshi Hospital										
						Lady Hardinge										
14.	3	Timarpur	Kabir Basti Malka Ganj (within premise of Raghushalla, Delhi	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
15.	3	Timarpur	DJB Site, A Block, Nehru Vihar, Mukherjee Nagar, Timarpur	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
16.	3	Timarpur	DJB SE office Lucknow road	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
17.	3	Timarpur	Near crossing under Sangam Vihar flyover	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
18.	3	Timarpur	Near PWD office, Awtar Singh	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-

			Marg, Gopal Pur.													
19.	2	Burari	DJB Site, Pradhan Enclave, Badarpur Majra	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
20.	2	Burari	Burari Jogi Chopal, Vijay Colony, Delhi.	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-
21.	2	Burari	AAMC HARDEV NAGAR Jharoda majra	-	-	-	-	-	-	-	-	-	Oct. '19	-	-	-

9. FINDINGS

Many factors affect the working of Mohalla Clinics. Firstly, let us consider the site and context. We've a comparison of two Mohalla Clinics i.e. Yamuna Pushta Rain Basera, and Hanuman Mandir Rainbasera, which are 600-800 metres apart.

The Yamuna Pushta Rain Bassera experiences a footfall of just 60-80 patients a day, while the Hanuman Mandir Rain Bassera Clinic experiences a footfall of 120-150. The Yamuna Pushta Rainbassera Clinic receives patients from mostly the night shelters, or construction workers and rickshaw pullers who work nearby. The Hanuman Mandir Rainbassera not only receives people from night shelters and people who work nearby but also experiences crowd from the temple. The temple has pujas on Tuesdays and Saturdays, and the people coming for worship also happen to visit the Mohalla Clinic on these days, hence contributing to the extra footfall this clinic witnesses, apart from the fact that it has a direct connection to the main road.

Similarly, the Clinic near Khalsa College gets a lot of footfall, especially students owing to its proximity to the campus. As in the case of Yamuna Pushta rainbassera, the clinic experiences patients who are often alcoholics, drug addicts, etc., and its entire staff comprises of female workers. We would want to find out if the authorities recruit their staff with site-sensitivity and consider the target audience during the same.

Secondly, the salaries and working hours have been seen to influence the type of doctors catering their service in these clinics. After having interviewed 9 doctors in the central zone it has been found that

- OPD timing
- Total working hours
- Payscale - 40 rupees/patient
- Community where the doctor resides
- Years of experience

Play a crucial role in their service and appointment.

There has been a streak of politics that has seemed to greatly affect the model of Mohalla Clinics. The Mohalla Clinics was an initiative that was taken by the Aam Aadmi Party after they came to power in 2015. As the elections are again due in February 2020 and susceptible to a change in party, we must study the Mohalla Clinics at this point of time, owing to their transitory nature.

Our initial research involved the need to study why the Government came up with the Mohalla clinics in the first place, despite there being an already existing system of dispensaries and polyclinics. Mohalla Clinics were introduced by the Government independent of the existing dispensaries, and the dispensaries are being converted to polyclinics. (Express News Service, 2019) The Mohalla Clinics and the Polyclinics constitute the first and the second tiers of the tiered healthcare system respectively. As per the count, there are currently 26 polyclinics and 200 state-run dispensaries as compared to proposed 150 polyclinics. (Anon., 2018) While the Mohalla Clinics offer basic primary general care to patients, the polyclinics offer speciality care and as per the government, polyclinics are speciality OPDs where medicine, gynaecology, surgery, orthopaedics and paediatrics specialists are available on different days of the week. While the series of Governments in Delhi have been able to set up around 260 dispensaries in 70 years, the current AAP led Government has set up more than 300 Mohalla Clinics in around five years. (Mishra, 2019) The existing dispensaries received as low as 25 patients a day, and the major load of patients crowded hospitals, making the system inefficient and ineffective. The Mohalla Clinics were planned considering the aspects of accessibility and approachability, and have fulfilled the requirements of a primary level healthcare system to a great extent. Unlike the Mohalla Clinics, which constitute a part of the Delhi State Health Mission, the dispensaries constitute a part of the Delhi Rural Health Mission. (Anon., 2015) The ASHA workers, or health workers, work in association with the dispensaries, and not Mohalla Clinics. It is only the Clinic at Peeragarhi, the first clinic to have started, that works in association with three ASHA workers. As per our interpretation, owing to these differences, the Government probably felt the need to start a new system of Primary Healthcare with its own different identity and working mechanism and hence came up with Mohalla Clinics.

Quite initially, after the Government started with its pilot project of launching the first 100 clinics in 2016, it came under the scanner by other political parties soon after. (Mail Today, 2016) (Anon., 2017) The previous ruling party, Congress complained to the Central Vigilance Commission, alleging that the Government provided pecuniary benefits to AAP Workers and that the rent for these clinics was higher than the market value which was resulting in losses to the treasury. (Bhatnagar, 2016)

As per media reports, there have been cases where the government has had issues procuring land for the clinics, as they do not have land allocated to them under the 2021 Delhi Master Plan. According to officials from the health department, land acquisition is taking time and hampering the process of setting up of these clinics as per the initial plan. (Anon., 2019) There have been tiffs between the Delhi Government and the Delhi Development Authority over land allocation as there has been no land earmarked for primary health centres, clinics etc. and the latter, to their defence said that land cannot be issued since it's not under the MPD. Due to Delhi being a union territory, the land falls under the Centre's control. Therefore, the DDA is a Central body working in coherence with the UT government. (Anon., n.d.) The association of the DDA with the Central Government explains the reasons behind these disputes.

Facing an issue with acquiring land for new clinics, the Government has been now considering options to rent clinics wherever possible, so much so that they've offered to increase the rents for the premises. (Anon., 2019) They've been looking for alternatives which meet the specified parameters, and considering options such as government schools. (Press Trust of India, 2018) The Government was initially not offering to pay more than Rs.20000 for the clinics, but now offers to pay up to Rs.35000 as rent. As per the new guidelines, they've also reduced the minimum area for setting up clinics, from 50-60 sqm. to 40 sqm. (Anon., n.d.)

Recently, the Government set up 100 clinics from September to November and has achieved a clinic count of 311. (Anon., 2019) According to the Health Minister, these 100 clinics would treat up to 36 lakh patients. It further aims to set up 500 clinics before the elections in February 2020, to achieve their milestone of promised 1000 clinics. (Mishra, 2019) Their pace of coming up with new clinics has been accelerating as they're approaching the end of their term.

Many Mohalla Clinics have been getting overburdened off lately and started to witness a footfall of 150-250 patients. (Anon., 2019) As a consequence, in many clinics, the doctors start resorting to a practice of treating maximum possible patients a day, as they are paid according to the number of patients they treat daily. This affects the patients, as some of them don't get to speak to the doctors for even a minute

As per the doctors at the clinic whom we've interviewed, the government has now started a token system to ensure that 120 patients are catered to in a day with every patient getting to speak to the doctor for at least 3 minutes.

This system is both advantageous and undesirable to the patients. In one way, it is desirable since the doctors would now spend more time with a patient, thus being able to examine him carefully and in more detail. On the other hand, it's

a problem for the patients because they're not being able to get treated after 120 patients a day are registered, especially after being used to getting immediate help from the clinic, which is their only source of help in some circumstances.

10. DISCUSSION

Over time, the clinics have helped numerous people. 80% of people have felt that the advent of Mohalla Clinics has saved their medical expenses. 85% of people feel more satisfied and 77% of people feel that this has helped save on their commuting time. (Sah, et al., 2019) On their visit to the Peeragarhi Mohalla Clinic and one of the polyclinics in Paschim Vihar in 2018, former United Nations secretary-general Ban Ki-moon as well as former Norwegian prime minister Gro Harlem Brundtland praised and acknowledged the system and recommended that it should be implemented all over the country. (Chawla, 2018)

The model of Mohalla Clinics has become an inspiration to some primary healthcare models across the country. For instance, 'Sanjeevni Clinics' are coming up in Bhopal. (Times News Network, 2019) According to state health minister Tulsi Silawat, The Bhopal Municipal Corporation office near the Central Library has been vacated for the setting up of the city's first Sanjeevni Clinic, which would be inaugurated within a month. As per state health officials, these Sanjeevni Clinics shall come up in every ward of the four big cities- Bhopal, Indore, Gwalior, and Jabalpur, and around 700 new sub-centres are coming up in the state. (Anon., 2019) In Indore, eight new clinics will come up in the first phase. (Anon., 2019) The concerned department has identified these localities as the population of these areas ranges from 20000-50000 people and they have no government-run medical facility nearby for availing free medical assistance. In Jaipur, 'Janta Clinics' have been started on the lines of the Mohalla Clinics and two Community Centres have been chosen as sites for the same. (Anon., 2019) As per the Chief medical health officer of Jaipur, Narottam Singh, 10 clinics should be inaugurated by 1st December.

For a population of 582320, and with 21 existing clinics, in Central Delhi, we have an average load of about 27730 people on every clinic. If 3 more clinics come up as per the proposed model, the average load reduces substantially to 24000 people per clinic, which is relatively close to the expected 15000 people per clinic. (Anon., 2017) To achieve the goal of 15000 people per clinic, the Government would need to open a total of 39 such clinics in entire Central Delhi.

Primary Healthcare in India is facing problems attributing to many reasons. The real indicators come from people dependent on healthcare treatments the most, especially children and senior citizens. (Dodge, 2008) Healthcare in India is unaffordable or inaccessible, making it easier for people to seek help from local quacks. (Mohan, 2018) The report by the National Commission of Macroeconomics and Health by the Government of India points out at three reasons for the problematic Primary Healthcare in India: poor governance and the dysfunctional role of the state; lack of strategic visions; and an overall weak management. (Ministry of Health & Family Welfare, Government of India, 2005) Poor management of resources and unanimous decision-making, low budgets, irregular supplies, large-scale practises of avoiding work, absence of performance-based monitoring and contradicting job roles are adding to the limitations. As of 2016, the GDP for Health out of the Gross GDP (%) is 3.7, 8.1, 10.5 and 12.9 in India, Iran, Canada and Cuba respectively. (Anon., n.d.) India's GDP dropped from 4.7 in 2014 to 3.7 in 2016, and these alarming figures clearly show the lack of expenditure on public health in our country, contributing to the limitations faced by different health models, such as the Mohalla Clinics in India.

To summarise, the Mohalla Clinic System has been a success in itself and has managed to help a large number of patients despite being not as sufficient as the required number, but their efforts to reduce the load on secondary and tertiary hospitals has not been considerable enough. This is because hospitals, do not keep a record of patients that approach on referral, and secondly, the linkages among the intermediate tiers between the Mohalla clinics and the hospitals aren't clear.

11. DISSEMINATION

Our research has helped us prepare for alternate job fields such as

- Planning in healthcare services
- Research in health policies

This research would help and serve as a guide for the planning of other health models on similar lines in the country, such as similar PHC Models that have come up in Indore, Jaipur, etc.

POLICY WORK

The model of Mohalla clinics has contributed towards achieving goals of National Urban Health Mission. The policy was launched under the National Health Mission in May 2013. (Anon., n.d.) The scheme focuses on primary health care needs of the urban poor. It aims at achieving:

- 1 Urban Primary Health Centre (U-PHC) for every 50000- 60000 population
- 1 Auxiliary Nursing Midwives (ANM) for 10,000 population.
- 1 Accredited Social Health Activist ASHA (health worker) for around 200 to 500 households.
- 1 Urban Community Health Centre (U-CHC) for 5-6 U-PHCs in big cities.

Mohalla clinics have helped distribute the load on government hospitals in Delhi and have helped to treat more people daily. It has strengthened the primary health care system to meet the needs of NUHM.

CONFLICT OF INTERESTS

None.

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