PROJECT JAANKARI

SESSION 2019-20

A PERFORMANCE EVALUATION OF MOHALLA CLINICS

THE ECONOMICS SOCIETY, SRCC

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INTRODUCTION

The objective of this research project is to analyse the effectiveness of Mohalla Clinics in providing quality healthcare facilities to people. In other words, through first and second hand data collection this research project aims to conclude whether or not the Mohalla Clinics have increased the efficiency of the public healthcare system in the national capital.

Access to quality healthcare services is the fundamental right of every individual to lead a dignified life and hence, every government must ensure that it caters to its citizens' healthcare needs. A healthy population also serves as an asset to the nation and comprises a strong human resource capital. Thus, a government that invests in its social sector reaps higher dividend in future in the form of higher productivity, employment, and economic growth. While health broadly includes physical, social and mental well being of a person, at the most primary level, ensuring physical wellness of the population is the most basic requirement that the government must fulfill.

In India, the public sector plays a less active role in the healthcare sector. While the public health care system is responsible for spending 1% of the GDP, approximately 3% of the GDP per annum is spent in the private sector on healthcare. However, in recent years, both the union and state budgets have increased their allocation of funds towards the public healthcare system to make healthcare a more accessible and affordable service for all. According to the Indian Constitution, the onus of providing healthcare facilities rests on the state rather than the union government, and thus every state in the Indian Union is responsible for "raising the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties".

One of the major initiatives taken by the Central Government was the ideation of the National Health Protection Scheme, Ayushman Bharat - now renamed the Pradhan Mantri Jan Arogya Yojana. Under this scheme which was rolled out in September 2018, the government aims to help economically vulnerable Indians who are in need of healthcare services. As of September 2019, it was reported that 18,059 hospitals have been empanelled, over 44 lakh beneficiaries have been admitted and over 10 crore e-cards have been issued.

In the capital city, New Delhi, the Aam Aadmi Party under the leadership of Delhi's Chief Minister, Arvind Kejriwal has taken significant strides to improve the quality and accessibility of healthcare services. In Delhi, the government

provides healthcare services through primary, secondary and tertiary facilities. Primary care is delivered through dispensaries, secondary health care is delivered through multi-specialty hospitals and tertiary health care services through super-specialty hospitals. These health facilities cater to the needs of not only the population of Delhi, but also migratory and floating population from neighbourhood states which constitute considerable patient size. Besides, there are many un-served and under-served areas particularly in clusters, slums, unauthorized colonies, densely populated areas and rural areas where poor and vulnerable populations have no or limited access to the primary health care services within their reach.

The AAP government collaborates with various private sector players and pays them in Central Government Health Scheme (CGHS) rates. For example, if a patient has been waiting for a surgery at a government hospital for over a month, they will be allocated to a private hospital that has been NABH certified and that has CGHS facility. The Aam Aadmi Mohalla Clinic was conceptualized as a mechanism to provide quality primary health care services to communities in Delhi at their doorstep. Mohalla in Hindi means neighbourhood or community. These clinics provide basic medical care based on standard treatment protocols which include curative care for common illnesses like fever, diarrhoea, skin problems, respiratory problems etc., first aid for injuries and burns, dressing and management of minor wounds and referral services. Besides, all lab investigations are carried out by the empanelled laboratory for the clinic and all drugs as per the essential drug list are provided free of cost to the patients. Preventive services such as antenatal and postnatal care of pregnant women, assessment of nutritional status and counselling and preventive component of National or State Health Programmes are also provided in the clinics.
The clinics function from 8:00 am to 2:00 pm on all days from Monday to Saturday.

The first Mohalla Clinic of Delhi was inaugurated on 19th July 2015 at Peeragarhi area of West Delhi. It took the government another 9 months to set up additional 100 clinics. By December 2016, a total of 106 clinics were established across all 11 districts and in 55 of total 70 assembly constituencies of the state. Majority of the clinics had been started in the early 2016 and became popular among the community, soon thereafter. An official release from the Government of Delhi reported that by July 2016, nearly 800,000 people had availed health services & 43,000 pathological tests were conducted. In September–October 2016, when Delhi witnessed an outbreak of dengue and Chikungunya diseases and the health facilities were flooded with patients.

Over time, there have been a number of revisions in the design of the clinics, all aiming to make them people friendly. The clinics are also trying to digitise patient records with the support of the Wadhwani Initiative for Sustainable Healthcare (WISH) Foundation. Each clinic is required to use tablet computers for registration of patients, keeping a record of diagnoses, generation of e-prescriptions, budgeting, inventory and human resource management. Each Mohalla Clinic serves a population of 10,000 to 15,000, and 70-100 patients visit a Mohalla Clinic every day on average. In our report, we analyse the implementation of all these initiatives, and whether or not the clinics are able to meet the target set by the government.

LITERATURE REVIEW

The Aam Aadmi Party government, with a vision of providing quality and affordable healthcare to all, had started the concept of Mohalla Clinics (also called “Aam Aadmi clinics”). Mohalla Clinic scheme is an attempt to further decentralise healthcare in Delhi. The clinics offer 110 essential drugs and 212 diagnostic tests to people free of cost. This primary healthcare network has been lauded by global leaders such as Gro Harlem Brundtland and Kofi Annan as a model for scaling up universal health coverage in urban areas of India and the world. UK’s The Lancet - one of the oldest medical journals in the world - also praised the concept last December.

The paper recommends modifications to the Mohalla Clinics scheme in order to incorporate the parallel aspect of preventive public health and emerge as ‘Wellness Clinics’. These clinics have set the background to bring Cleanliness-Health-Education-Sanitation-Social sectors
(C-H-E-S-S) as an alternative to Bijli-Sadak-Pani (B-S-P) as electoral agenda and political discourse in India.

REASON FOR THEIR FORMULATION

The underlying idea for Mohalla clinics is to bring diagnosis and treatment for simple ailments to the doorstep and reduce the pressure on tertiary care and multi-specialty hospitals. By treating minor ailments outside hospitals, these clinics are expected to free doctors at specialty care hospitals to focus on complex diseases and surgeries. The reality of health services in India is the unpredictable availability of providers, lack of assured services, medicines, and diagnostics, and poorly functioning referral linkage. Not surprisingly, a large proportion of people, even for common illnesses such as fever, cough, and cold, seek care at secondary and tertiary levels of government health facilities/institutions.

This leads to overcrowding, long waiting hours, poor quality of service delivery, and people being unsatisfied. With this experience, – rather than spending on transport, visiting multiple times without service guarantee, waiting for hours to be seen by a doctor, and then spending money on medicines and diagnostics – people including poorest quartile of the population find public health facilities too much of a hassle, and consult either non qualified providers or private providers, even at the cost of spending money from their pocket.

FUNCTIONING OF THE CLINICS

Each such clinic–reportedly set up for around INR 20 lakhs–is staffed with a doctor, a nurse, a pharmacist, and a laboratory technician, with a few variations across clinics, and provides a defined package of services. Funding for Mohalla Clinics relies on domestic resource mobilization. Private, qualified doctors are being requested to apply to the government to be empanelled. After selection the doctor shall be given control of the chamber after short training.

According to the Scheme, the clinics shall have two/ three rooms with electricity, water and sewer connection which shall be rented by the government. The basic pharmacy shall be stocked by the Chief District Medical Officer (CDMO) of the district.

For tests, private laboratories have been empanelled to conduct a range of diagnostic tests free of cost. The government compensates them for it. The doctor gets Rs 30 per patient, helper Rs 8 per patient, and sweeper Rs 2 per patient.

Patients are examined using an internet-connected electronic tablet-based protocol and medicines are prescribed and dispensed by the doctor. The biometric listing of patients is maintained along with a list of medicines dispensed on a digital cloud and made available to the government.

A majority of the Mohalla Clinics have *Swasthya Slate*—a medical device of the size of a cake tin which performs *33 common medical tests*. It costs around Rs 60,000. The device uploads its data into a cloud-based medical record management system that can be accessed by the patient.

POSITIVE FEEDBACK

Following are some of the *advantages* of Mohalla Clinics from the research:

- An important impact of such clinics has been the *weeding out of unqualified medical practitioners* and quacks. With quality medical care available for free, people, including *even those who could afford private clinics,* have started visiting these clinics.

- Daily wage labourers no longer have to sacrifice their day's wage to get their family members treated. Since clinics are operational within the residential colonies, it's convenient for the patients to visit *without the hassle of getting transport.*

- Retired doctors who are looking for short working hours and pay, can work here.

- Mohalla Clinics are *highly cost-effective*. The one-time cost of these 1,000 clinics is approximately Rs 200 crores.

- Many people complained that some sort of *Babu culture* always existed in the government hospitals. Long waiting hours, preferential treatment to relatives or acquaintances was always prevalent. AAP's Mohalla Clinic initiative has certainly improved the scenario on these counts.

- By treating minor ailments outside hospitals, Mohalla clinics are expected to free up doctors at tertiary care hospitals to focus on complicated diseases and surgeries since minor ailments such as fever, headache, infections, etc. account for 90 - 95% of ailments, which could be easily treated at the out-patient clinics.

110

ESSENTIAL DRUGS AVAILABLE

212

DIAGNOSTIC TESTS OFFERED

₹ 20 lacs

COST OF SETTING UP A MOHALLA CLINIC

₹ 375 cr.

BUDGET ALLOCATION TO MOHALLA CLINICS IN 2019-20

480

OPERATIONAL MOHALLA CLINICS IN DELHI

NEGATIVE FEEDBACK

On the flip side, following are the *limitations* as collected from the respondents:

- *Migrant workers without Aadhar cards* with a residential address in Delhi can't avail the services of Mohalla clinics and are forced to visit government doctors.
- *Government hospitals continue to get more patients* despite their shortcomings, as there are less than 500 Mohalla Clinics (acquiring land in Delhi for the construction of AAMCs has been the biggest challenge with various central government institutions obstructing the establishments of several Mohalla clinics).
- Another issue pointed out by the doctors was their *inadequate salary.* Delhi has the advantage of fresh graduates as well as retired senior physicians who would be ideal for the project. However, proper incentives must be developed for hiring and retaining.
- The area in which these cabins are built are *not the most hygienic places.* With heaps of garbage beside them and waterlogging, they pose danger to those already unwell.
- *Improvement in infrastructure*, i.e. developing bigger clinics, building fences for safety of women and children, uninterrupted power and water supplies, and access to ambulance for emergency cases is required.

FUTURE OF MOHALLA CLINICS

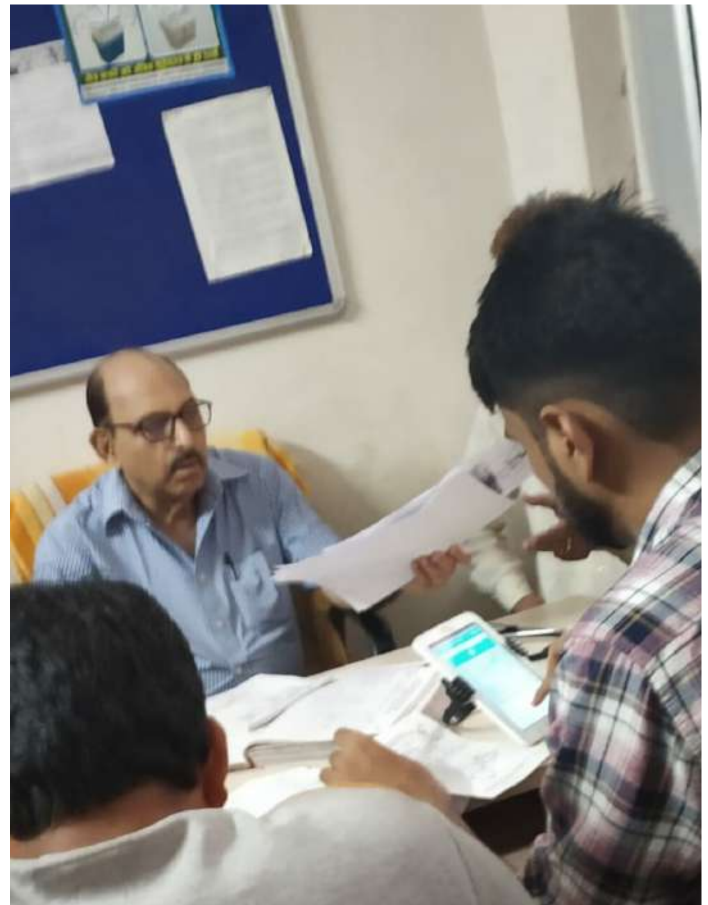
The government has promised to set up *500 to 1,000 clinics*, or 14 clinics per assembly constituency. According to the PWD, a recent tender for the construction of about 400 Mohalla clinics was floated out of which *145 clinics have been completed.* The AAP government has also decided to form a society to manage its day-to-day operations which, headed by Health Minister Satyendra Jain, will be registered under the Societies Act and run as an autonomous body, free to take financial and administrative decisions.

In the recent budget of 2019-20, AAP has made a further provision for allocating *Rs 7,485 crore for the healthcare sector* in contrast to the Rs 6,729 crore allocated last year, thereby provisioning *Rs 375 crore* for setting up more Mohalla Clinics and polyclinics. Mr. Kejriwal will examine whether the Centre's *Ayushman Bharat programme* can be integrated with the Delhi government's health scheme in cognizance with the aim of providing *5 lakh annual health cover* to ten crore unprivileged Indians.

METHODOLOGY

The study used both qualitative and quantitative interview questions. Informed consent was obtained from the respondents and the questionnaire collected important information through in-depth interviews. 35 doctors and members of staff were interviewed across 8 broad Mohalla Clinic Zones around Delhi. Quantitative and qualitative data on clients' use and satisfaction with Mohalla Clinic services was obtained from 356 respondents, aged 18-80, located around an area of 1-2kms of a Mohalla Clinic. These questions formed part of a longer interview conducted specifically with the users of services of Mohalla Clinics. A team of 4-6 students was sent to each Mohalla Clinic. No specific role was allotted to the interviewers, and a free-flow conversational type of interviewing was followed. This was done so as to keep the interviewee as comfortable as possible, and to elicit honest responses from the interviewees.

The Questionnaire set was structured into two divisions- one for the doctors and medical staff and the other for the residents. The resident division was further divided into two- one for those who have visited a Mohalla Clinic and one for those who haven't. The table on the next page highlights the broad categories of questions asked from each of the parties:



DOCTORS

The questions asked to the doctors and medical staff included:

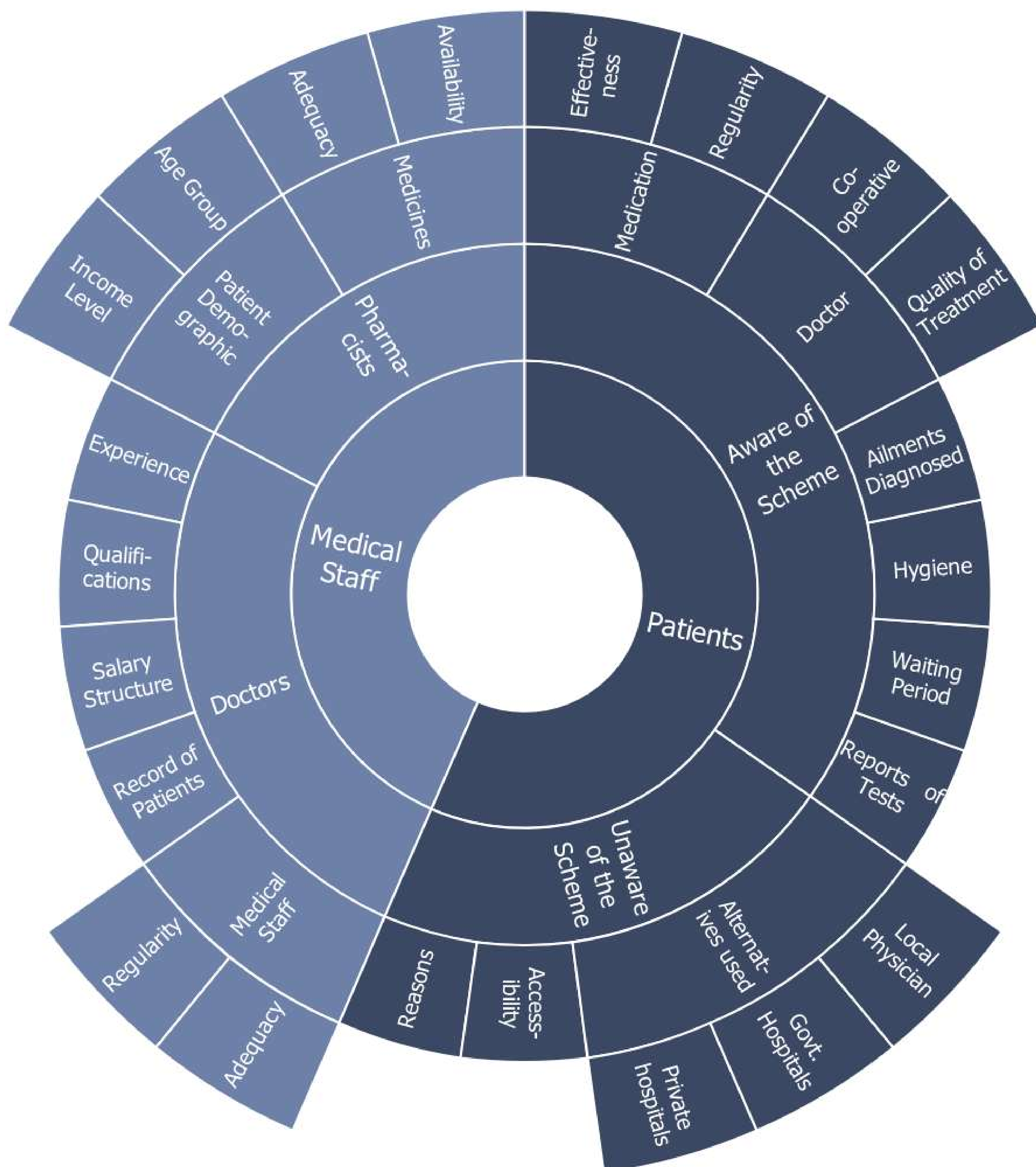
-How long had they been working in the Mohalla Clinic and their previous occupation
-Number of patients visiting everyday and the target set by the government
-The salary structure and whether they get their salaries on time or not
-The staff strength and whether it is sufficient or not
-Supply of medicines and whether it was adequate and regular
-The common problems for which the patients come in and whether they come for tests
-General income group, gender bracket and age group of the patients.
-Regularity of government checks and visits

PATIENTS

The questions asked to the residents who did not visit the Mohalla Clinic included:
-Where did they go for their healthcare needs and if there was a Mohalla clinic near their house
-Reasons for not opting Mohalla Clinics

The questions asked to the residents who visited the Mohalla Clinics included:
-Frequency of visits & average waiting time
-Common Diseases/problems
-Availability of medicines given to them & quality of treatment by the doctors
-If first aid facilities were available
-Test taken in the clinic & time taken to generate the report
-Sanitation and upkeep of the clinic
-Suggestions for improvement of the clinic

The following sun-burst diagram helps represent the broad categories of interviewees and the variables studied under these categories through the questionnaire:



In terms of the analysis, we tried to build a structure, wherein we first studied individual questions/variables to determine the doctor and patient demographic so as to develop a better understanding of the parties in view (Single Variable Analysis). Then, we looked at two or more variables, pertaining to a single party, together to determine internal linkages and divisions in the variables (Multivariate Analysis). We further compared the responses of the doctors with the patients to find correlations in the study (Inter-Head Analysis).

SINGLE VARIABLE ANALYSIS

The first was to interpret individual questions asked to both doctors and patients. This was done to develop demographic profile of the two major stakeholders of the clinics- patients and doctors, and thereby gauge the performance from the viewpoints of both. For example, questions pertaining to average age of patients, average number of visits, average salary of doctors were answered through this analysis.

INTER-HEAD ANALYSIS

The Inter Head questions derive correlations between questions pertaining to doctors and patients simultaneously. The main purpose of this study was to find out any tacit factors that might affect the condition of the patient visiting the Mohalla clinic. For instance, a correlation has been derived between how long a doctor has worked and how many times a patient has visited in a year.

MULTIVARIATE ANALYSIS

This segment tried to study two variables together with a dual purpose. The first being to divide data pertaining to a single factor into segments. For instance, we have studied common ailments visited for with age demographic of the respondents. The second purpose included a correlation analysis to understand linkages between variables.

ZONAL ANALYSIS

The objective of Zonal Analysis was to shed light on the execution of Mohalla Clinics in individual zones with respect to varied parameters and factors to decode its performance at a larger scale. This helps to decide which Zone is operating as per the rules and norms of the government and which zones are still far off from the concerned objectives.

ANALYSIS & INTERPRETATIONS

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DOCTOR PROFILE

An average doctor had **10.5** months of past experience

As many as **76.4%** doctors are unsatisfied with salaries

A doctor is typically assisted by **3** staff members

An average doctor serves around **128** patients daily

47% doctors had a private practice before

Less than **39%** are satisfied with the overall functioning

Government officials visit these clinics **2-3** times a month

Medicines are usually given for **7.1** days

Only **62.8%** staffers receive salaries on time.

PATIENT PROFILE

Only **6.4%** people didn't know about the Mohalla Clinics

The average respondent was **41.6** years old.

Individuals usually made **5.1** visits to the clinics in a year

The sample of residents had **64.4%** males

26.3% of residents have never visited a mohalla clinic

An average resident waits **35-40** minutes for their turn

Low-income groups comprised **82.8%** of the residents.

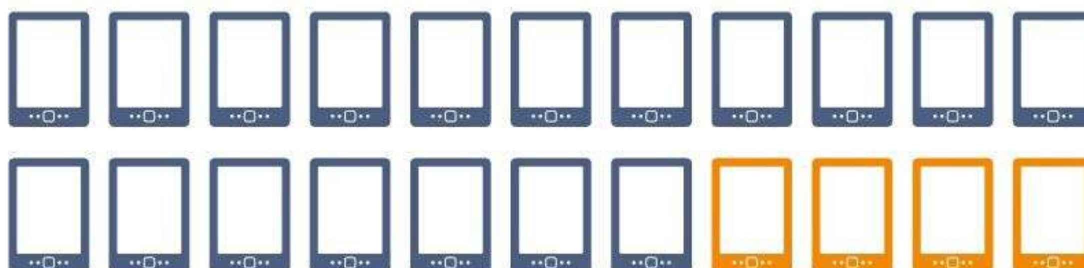
As many as **90.5%** residents trust the medicines given

The clinic is situated quite close for **74.7%** of respondents.

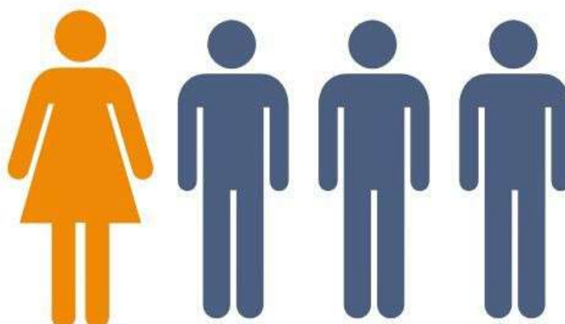
FACTS

Only 4 out of 22 surveyed doctors could not meet the target on time.

Only 2 out of 25 doctors had a working experience of 6 months and above.

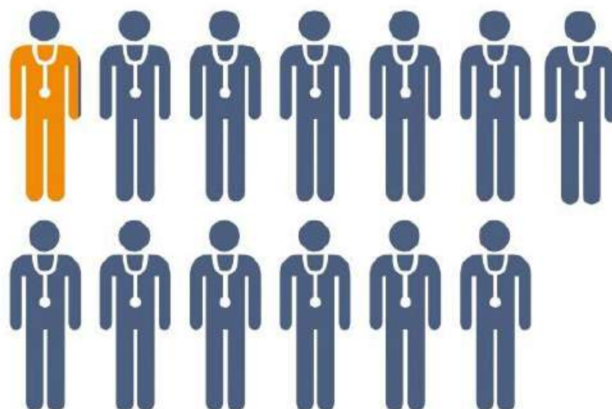


Only 4 in 22 clinics had a tablet.

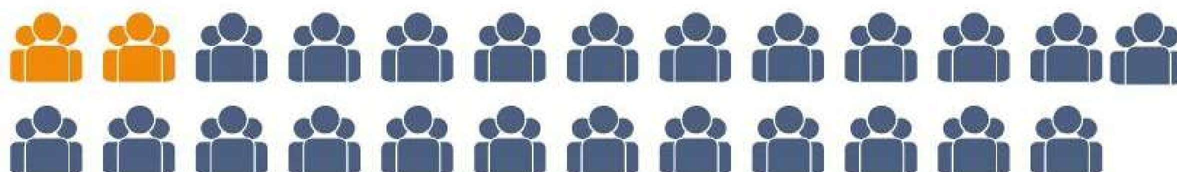


1 in 4 interviewees were females.

FACTS



1 in 13 doctors were found to be uncooperative by the respondents.



2 in 25 Mohalla Clinics see 200-250 patients everyday.

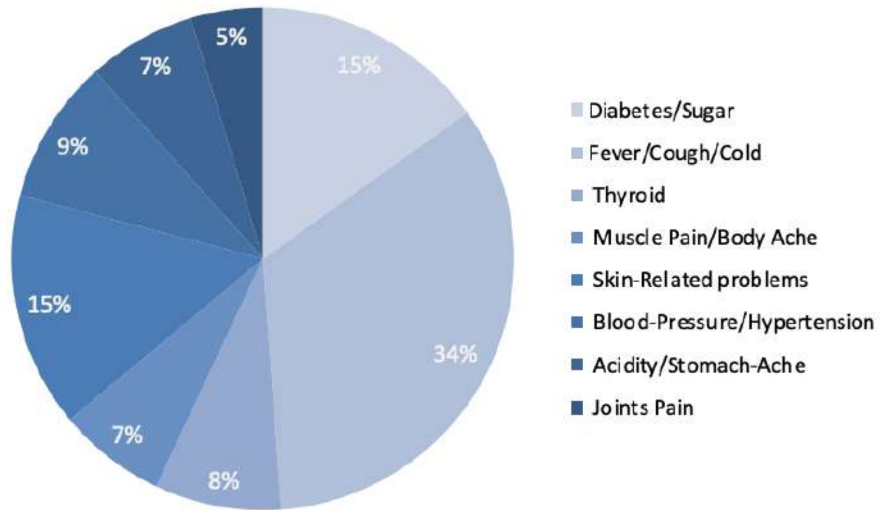
6 out of 22 clinics reported irregular supply in medicines.

1 in 12 clinics found the staff size to be inadequate.

MULTIVARIATE ANALYSIS

Figure 1: Disease Category Pie Chart

The adjacent diagram illustrates the division of various diseases for which the respondents visited the clinics.



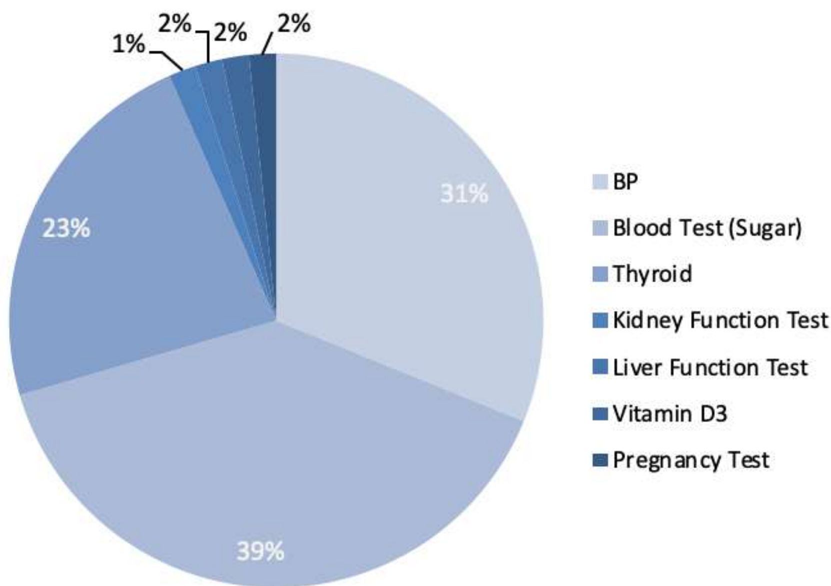


Figure 2: Test Category Pie Chart

The adjacent diagram illustrates the division of various tests for which the respondents visited the clinics.

Figure 3: Zone-wise Rating Bar Graph

The adjacent diagram illustrates the zone-wise average rating given to the doctors by the respondents.

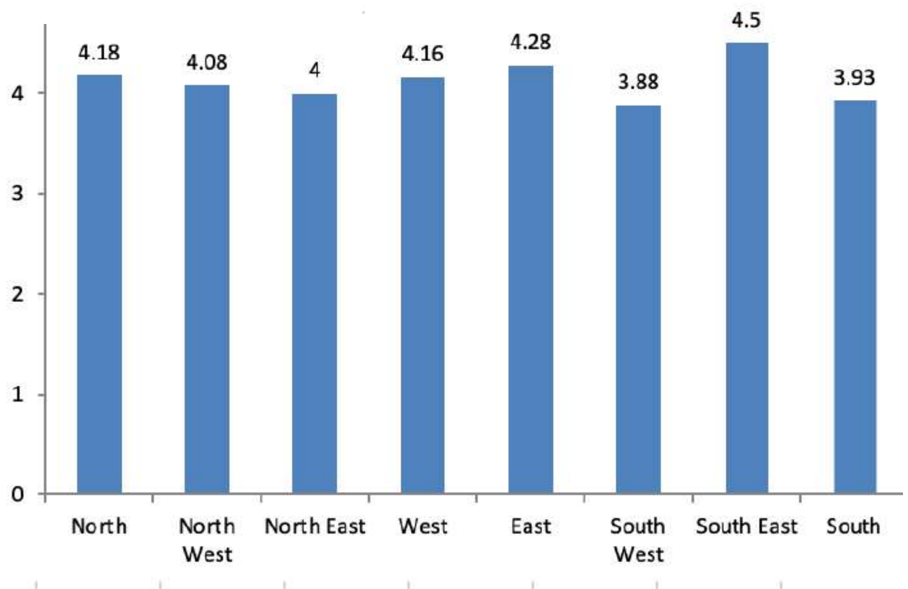


Figure 4: Zone-Disease Mosiac Chart

The diagram below illustrates the zone-wise division of each disease for which the respondents visited the clinics, thus showing which diseases were prominent in which areas.

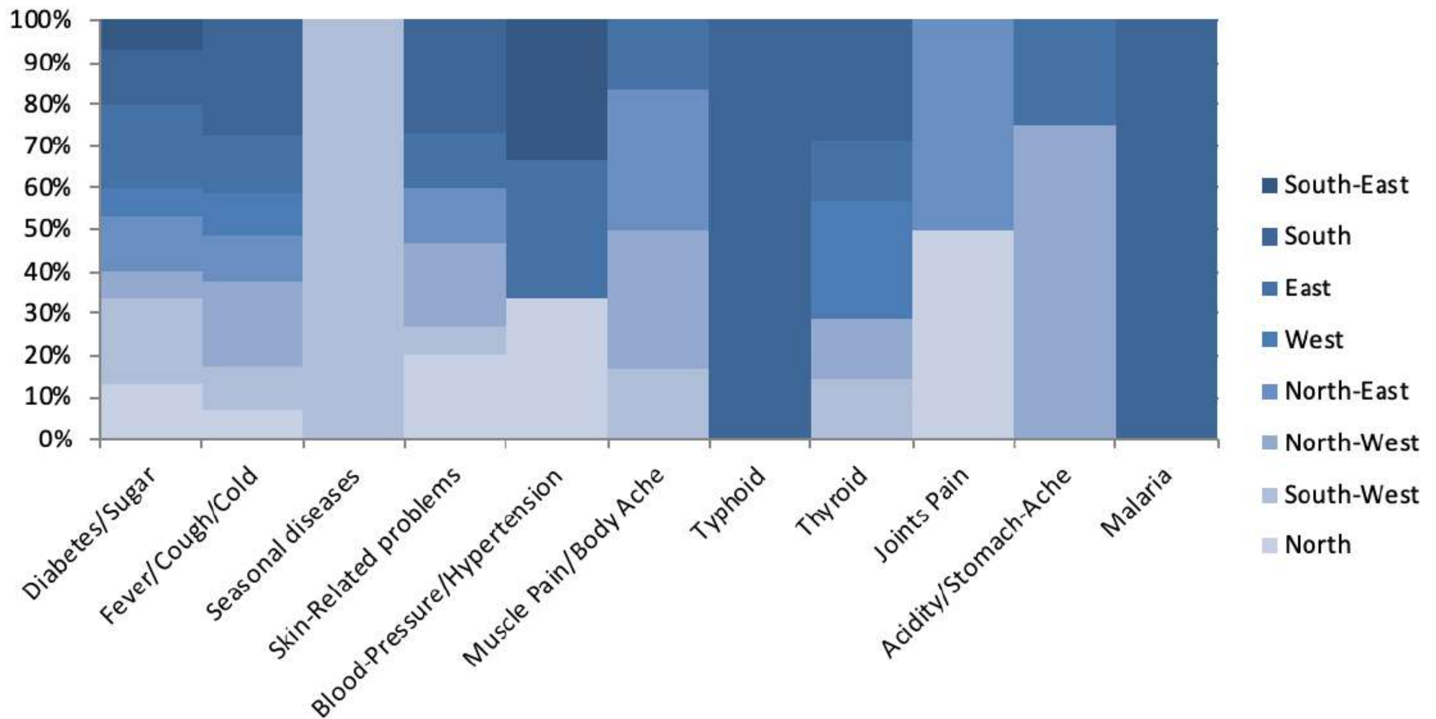
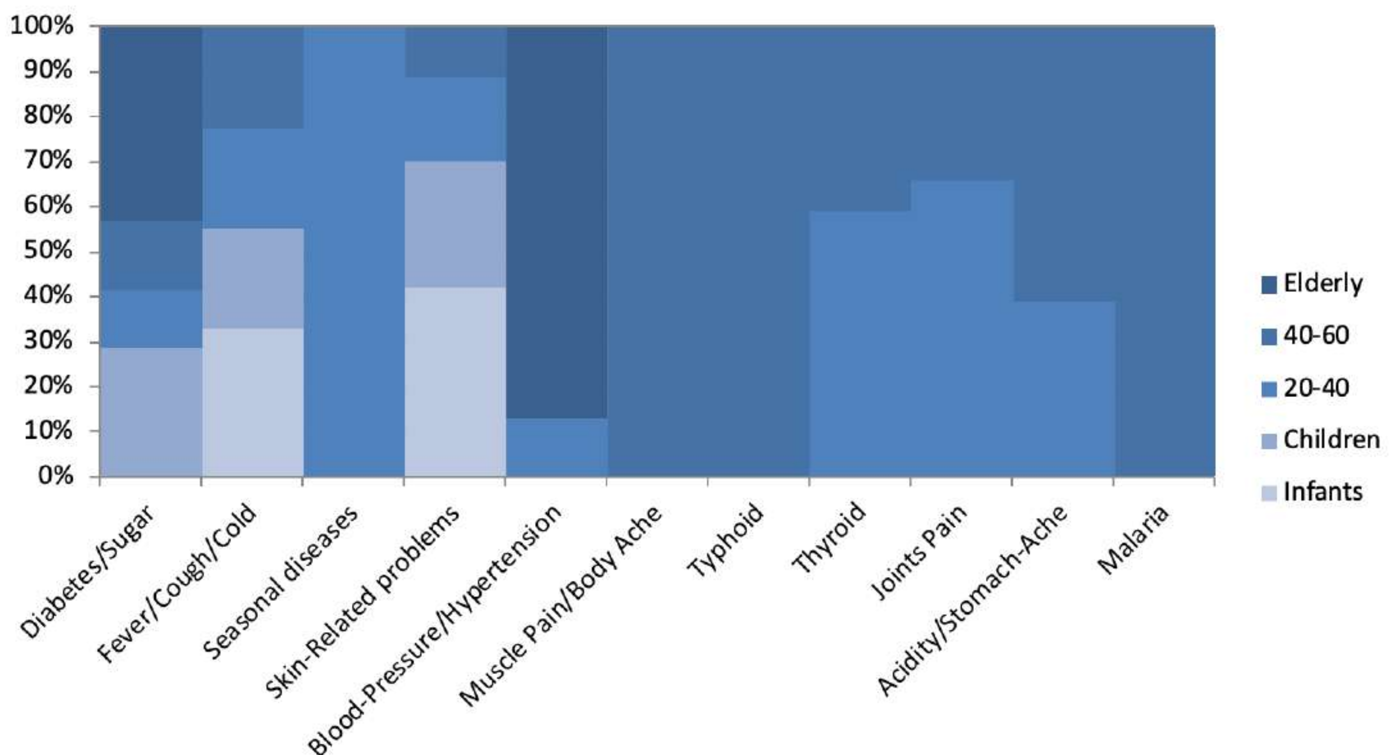
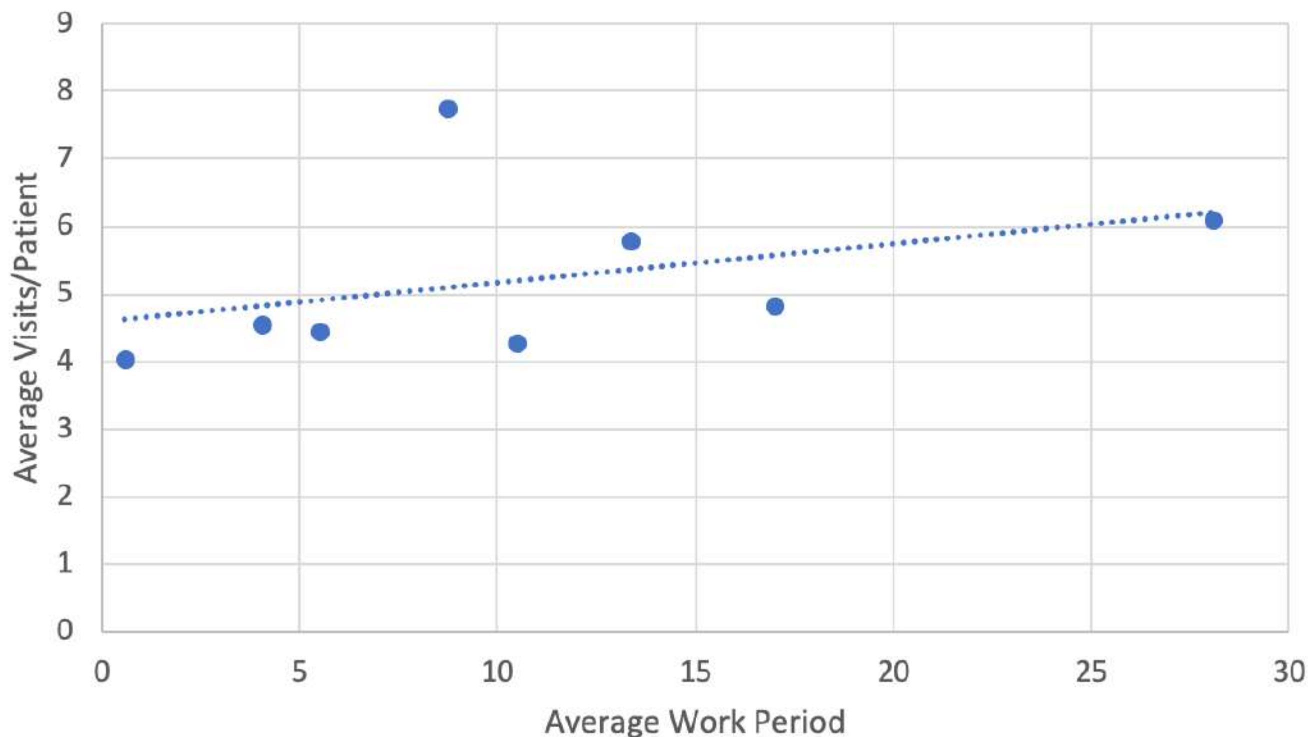


Figure 5: Age-Disease Mosiac Chart

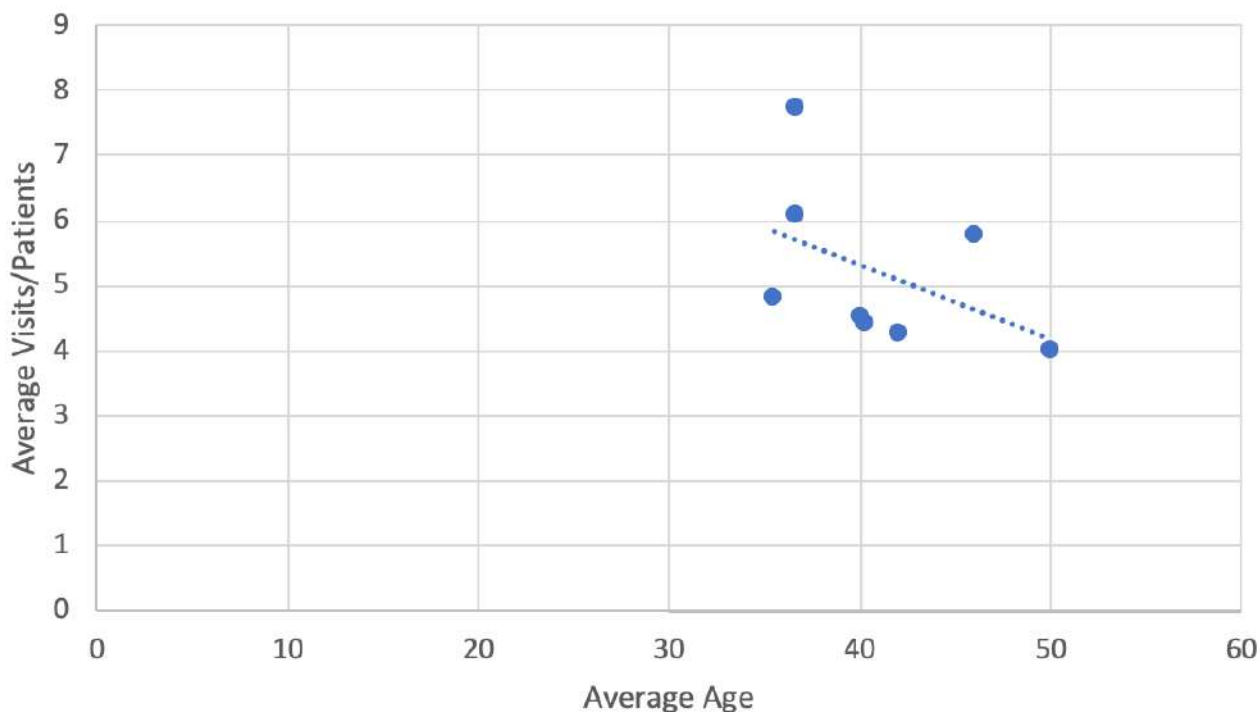
The diagram below illustrates the age-wise division of each disease for which the respondents visited the clinics, thus showing which diseases were prominent among which age groups.



INTER-HEAD ANALYSIS



Average work period is moderately correlated with Average Visits (0.4), meaning clinics with more experienced staff saw relatively higher number of repeat patients.



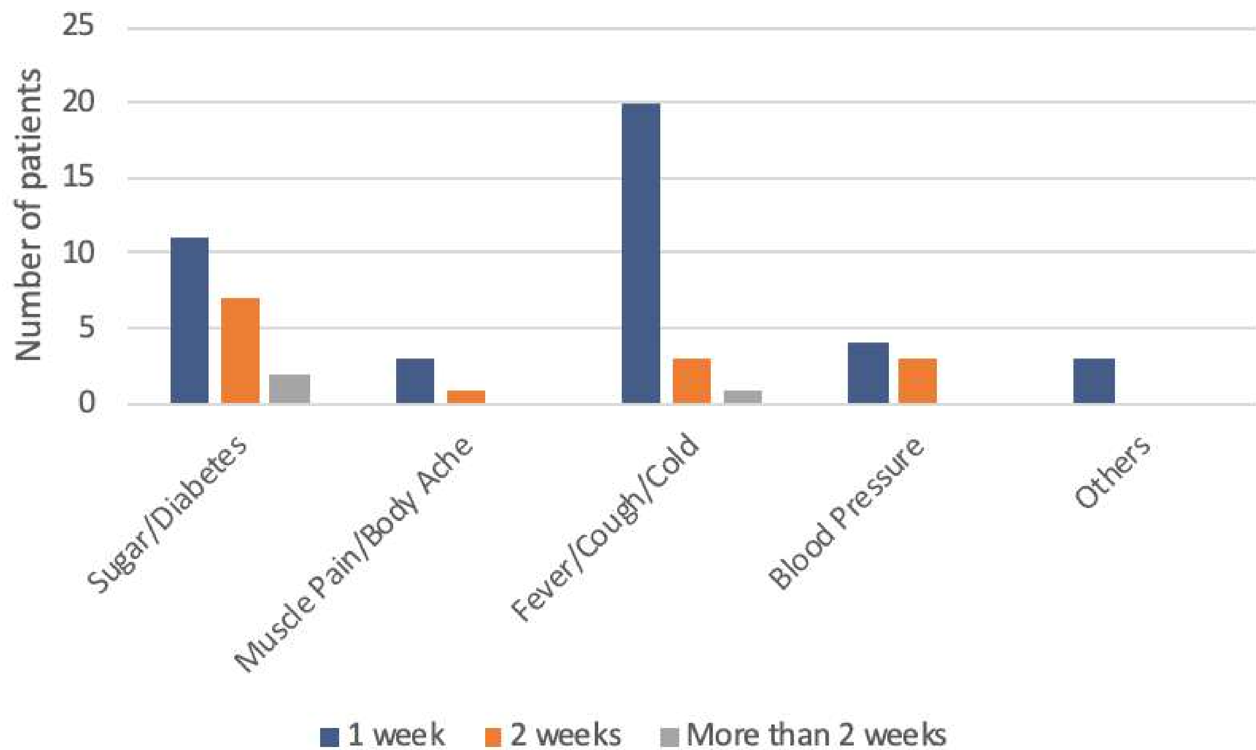
Average age is moderately, negatively correlated with Average visits (-0.46), meaning middle-aged people tend to visit Mohalla Clinics more than elderly people.

Poorly maintained clinics tend to reduce the **average daily visits,** having a **negative correlation of -0.372**

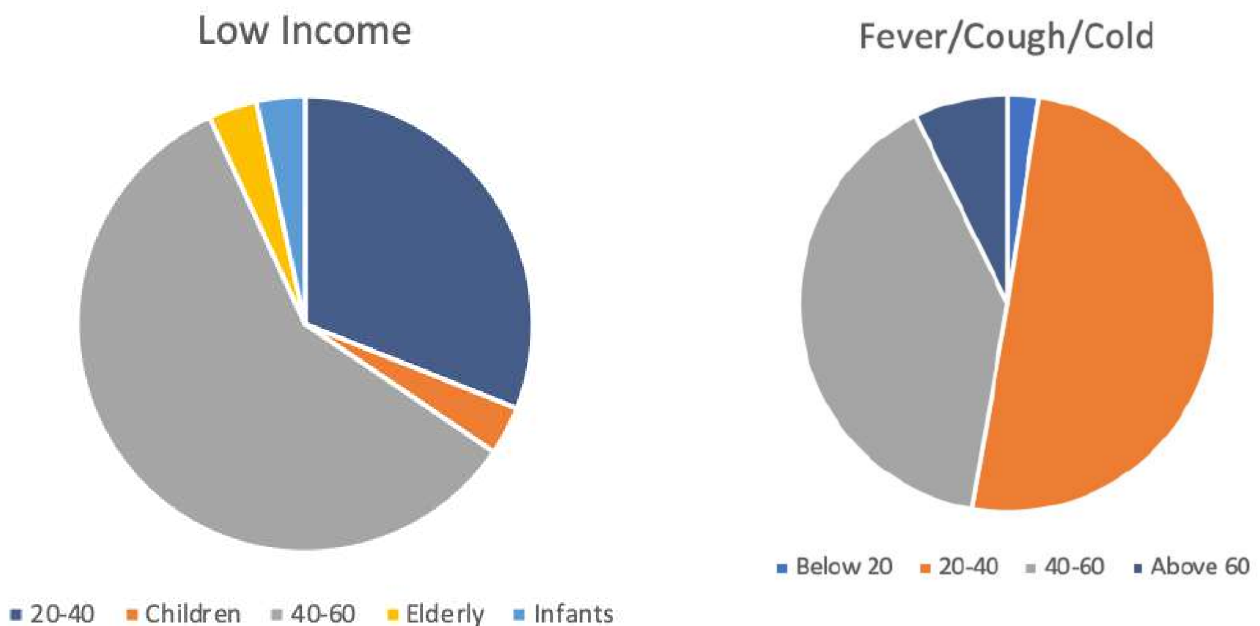
The average waiting time decreases a lot with an increase in the **number of staff, having a negative correlation of -0.632**

The size of the staff does not majorly effect the ratings or quality of the doctor, having a **minimal correlation of 0.128**

CORRELATION ANALYSIS

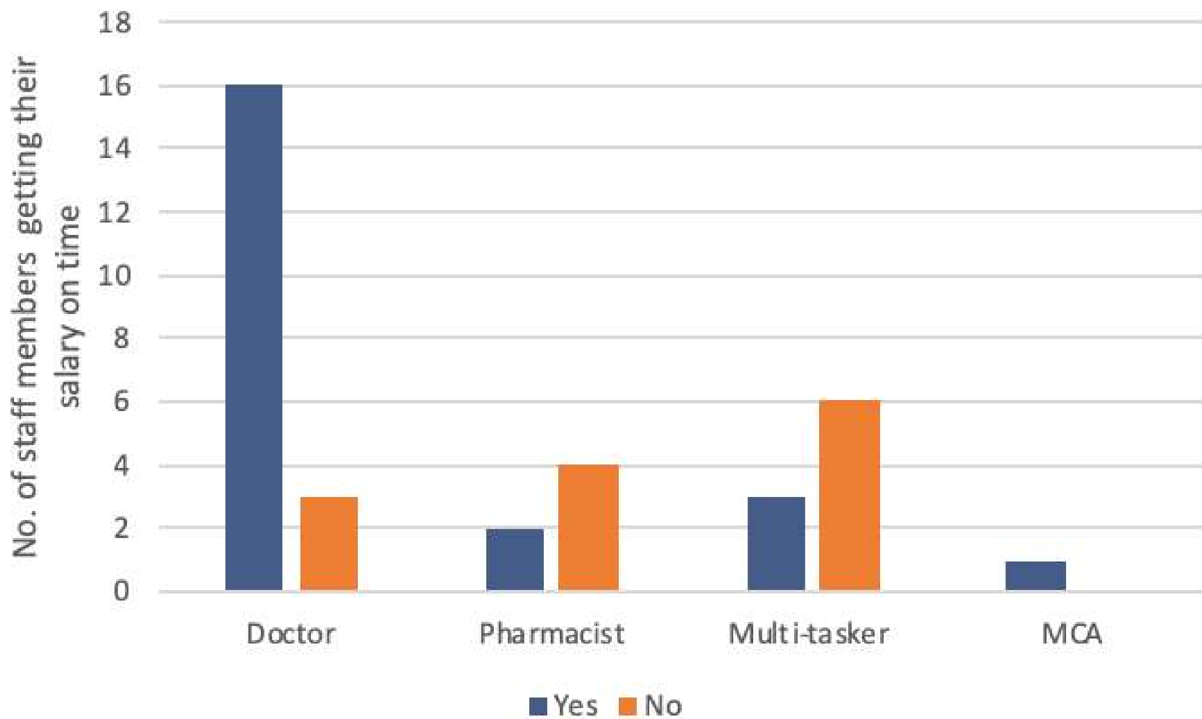


The time period for which medicines are given has a positive correlation with the disease. This shows how people with common diseases are prescribed medicines for a shorter term than diseases that require long term medication.



The most common diseases patients visit for are fever and common cold, and 65% of the patients visiting the clinic for these illnesses are of the age group 40 to 60 which is dominated by the low income groups.

CORRELATION ANALYSIS

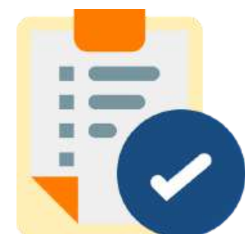


It has been observed that most of the doctors (72%) get their salaries on time, but the pharmacists and the other staff have to bear the brunt of late remuneration, and hence might face financial problems.

A greater proportion of females have got their tests done in Mohalla Clinics as compared to males indicating that the clinics are safe and in good shape for treating women.

More than 95% patients believe that the clinic doctors are cooperative and properly examine them before handing over medicines.

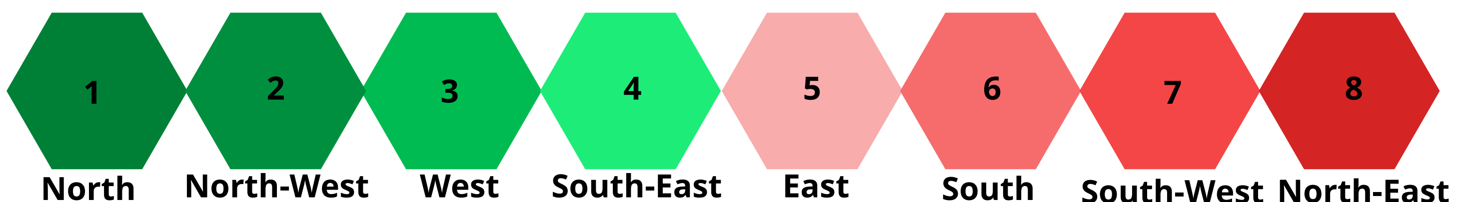
Most of the reports such as Blood, Liver, Thyroid, etc. are generated by Mohalla Clinics within 1-4 days.



ZONAL ANALYSIS

Parameters	North	South	East	West	North-West	South-West	North-East	South-East	Weights
FACILITIES									
Regularity of Medicines	7	2	3	8	5	1	4	6	4
Report Generation Time	8	5	3	6	4	7	1	1	1
Tests Conducted	1	6	2	5	3	4	7	8	2
CONVENIENCE									
Proximity of Clinic	2	7	3	5	1	6	8	4	3
Requirement of Prescription	8	3	1	4	2	5	6	7	1
Average Waiting Time	4	2	6	5	3	7	8	1	3
DOCTOR									
Average Rating of Doctor	3	7	2	4	5	8	6	1	4
Average Number of Visits	1	6	3	2	5	4	7	8	3
OTHERS									
Timely Payment of Salaries	5	8	6	1	3	4	7	1	2
Awareness about Mohalla Clinics	6	2	4	1	3	5	8	7	2

OVERALL RANKING



COMPARATIVE ANALYSIS

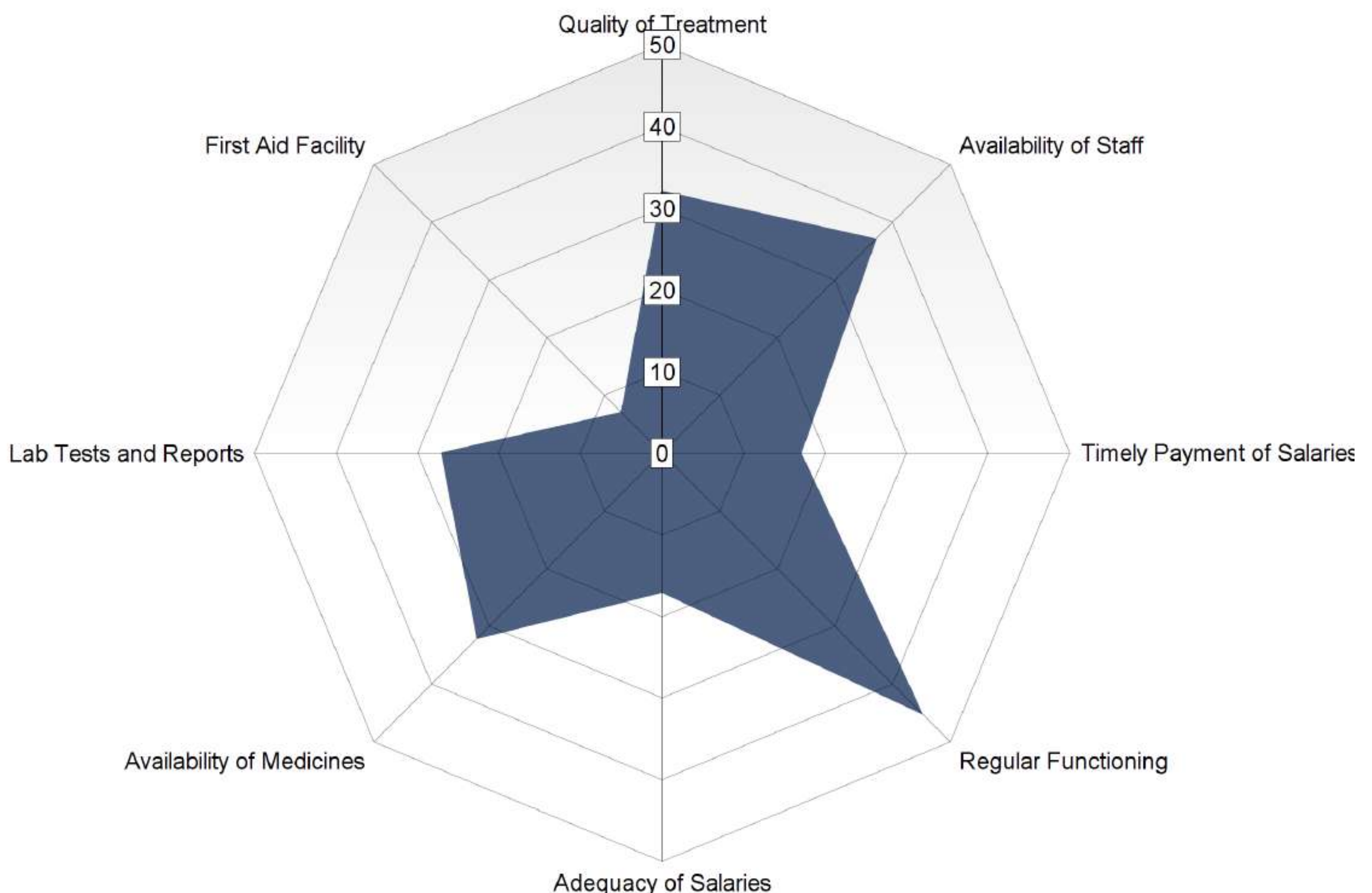
In order to further understand the degree of effectiveness and efficiency of the clinics, we studied their performance taking into consideration the actual policy with respect to the Aam Aadmi Mohalla Clinics as prescribed by the Government of Delhi. We studied their working under eight main factors, weighted as per their importance in catalysing primary healthcare. These factors were further categorised under three heads on the basis of the parties involved:

1. Clinics: Regularity of Functioning

2. Patients: a. Quality of Treatment
   b. Lab Tests and Reports
   c. Availability of Medicines
   d. First Aid Facility

3. Doctors: a. Adequacy of Salaries
   b. Availability of Staff
   c. Timely Payment of Salaries

The following spider chart illustrates the weighted score (out of 50) of 8 performance metrics highlighting the metric-wise perfomance of Mohalla Clinics, as per data provided by respondents:



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32 INFRASTRUCTURAL REVAMP

33 SECONDARY HEALTHCARE

34 MEDICAL EMERGENCIES

35 STAFF RECOMMENDATIONS

MAJOR RECOMMENDATION 1

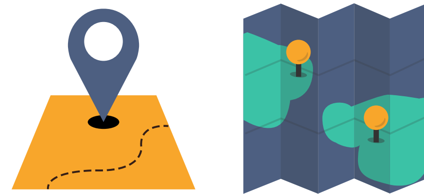
LOCATION MAPPING

PROBLEM

- A large proportion of patients whom we surveyed faced the problem of ***long queues and high waiting time*** at the clinics.
- We observed that while some clinics were ***burdened*** with the number of patients they had to cater to in a particular day, other clinics witnessed ***very less number*** of patients in a day, such as those situated in areas with ***relatively high income levels,*** thereby leading to the problem of ***inefficient utilisation of the resources.***
- This means that, the government is not appropriately analysing the needs of the clinics in the areas where they are being set up. Also, the performance of the clinics is ***not being reviewed periodically*** with respect to the number of patients.
- As of now the location of a clinic is decided with inputs from the ***local communities/ Planning Branch/ Resident Welfare Association*** on the basis of general factors like ***closeness to slums/ poor communities.***

FEASIBILITY

- This policy can be easily implemented without putting any burden on the government because it **does not require deployment of any additional resources.**
- Although the government will have to spend more on certain clinics to enable them to serve more patients, but at the same time it will be able to save resources by making some other clinics smaller where less number of patients are expected.
- No extra money has to be spent in collecting data on locality demographics as the same is already available with the government through the census.



SOLUTION

- While setting up Mohalla Clinics, it should be ensured that the clinics are able to cater to their ***core target group,*** which are women, senior citizens and children. Analysing and including this as a parameter would help in raising the social impact of these clinics.
- The government should ensure that ***sufficient data is collected and analysed*** on the demographics of a locality before setting up a clinic in that area.
- This would include analysing the population size, population density, prominent diseases, expected number of patients, sex ratio, working population, age group, income levels and the like.
- When this data is analysed, the government can make sure that the clinics ***don't get overburdened*** by the number of patients and that they properly cater to all of them.

IMPLEMENTATION

We have identified six core variables which should be analysed before setting up a clinic:

- **Population density:** The areas which have a relatively higher population density should have bigger sized clinics with more staff, for example: two doctors, because they receive more number of patients.

Example 1- North East, Central and East Delhi have a very high population density (27,000-36,000 people per sq. km.). Thus the clinics here should be bigger with more staff.

Example 2- North West, South West and New Delhi have very low population density (4,000-8,000 per sq. km.). So these areas should have smaller clinics with less staff (for example: no multitasker).

- **Income levels:** In areas with higher income levels, smaller clinic with fewer facilities can be set up, because the demand scope is limited in such areas.

- **Gender ratio:** ***South Delhi, South West Delhi and New Delhi*** are the worst performing areas in terms of sex ratio. The general assumption that more developed areas have better sex ratio turned out to be wrong here, given that these are some of the more developed areas of Delhi. Thus common assumptions should be avoided while mapping the clinics and concrete data points should be analysed. In these three zones, as a policy measure, more female doctors can be appointed to shift the mentality and preferences of people in favour of women.

- **Prominent diseases:** Depending upon the diseases which are prominent in a particular area, clinics can be equipped with the corresponding tools, medicines and test kits.

Example 1- Clinics in Rohini should be equipped with providing mental health related treatments and counselling because the area has a considerably high number of hypertension cases.

Example 2- Clinics in Rural Narela should have a sufficient stock of medicines to treat Diarrhoea because of the high number of cases in the area.

- **Age Composition:** According to our survey, younger age groups are less likely to visit a Mohalla Clinic. Thus, in the areas where a large proportion of the population belongs to the 10-30 age bracket, appropriate awareness drives should be conducted before setting up the clinic.

- **Working population:** Many patients couldn’t avail the services of Mohalla Clinics because of employment commitments during the hours in which the clinics operate. To address this issue, clinics with longer operating hours or those with evening hours can be set up in areas with a higher proportion of working class population.

Example- In New Delhi 41.9% of the people are workers (as per Census 2011), so here the clinics should remain open in the evening slot too.

MAJOR RECOMMENDATION 2

APP RECOMMENDATION

PROBLEM

-There is a general trend of the average number of visits increasing with the increase in the age group. This implies that ***fewer visits by young adults*** are because they are not properly integrated within the system.
- At the same time, ***there is lack of knowledge*** among people and rickshaw-walas about the location of Mohalla Clinics, leading to low usage.
- Additionally, ***long waiting time at clinics*** are also a factor which puts people off from visiting these clinics.

SOLUTION

The government can consider, as a long-term project, a mobile application dedicated to addressing the above problems. The application should have a simple interface with two divisions to it - one for the patients and one for the staff:

PATIENTS

The application must have the following features so that it can be used by patients belonging to all backgrounds easily:

- Open an account by scanning their Aadhaar Card

- Locate nearest clinic and check if doctor is available

- Reminders for check-up and medicine schedules

- Book an appointment and see the expected waiting time

STAFF

The application can be an effective way of linking the supply chain elements, from levels of distribution to the end unit of a clinic with the following features:

- Entry of all details of check-ups, i.e. particulars, diagnosis and medication

- Real-time medicine stock count

- Reminders when medicines fall below 25% of maximum capacity

- Place orders for medicines through the application

The application will add efficiency to the entire system as digitisation improves the manner in which data is used. A constant supply of medicines will be maintained and doctors shall be equipped to keep a track of past visits for repeat patients. This shall enable them to provide better treatment and improve patient satisfaction.

Inter Clinic Operability: This is another major synergy the application can offer. Due to the Aadhaar log-in being done on their phones, patients can approach any clinic in times of emergency and show the app as a substitute for the Aadhaar. Also, the doctor can refer to the patient's history and medicines irrespective of that patient's regularity in that particular clinic. This is an important benefit because people can now approach clinics near their place of work, even if it is away from their residence.

With the advent of digital revolution in India, it becomes essential for the government to digitalise its systems.

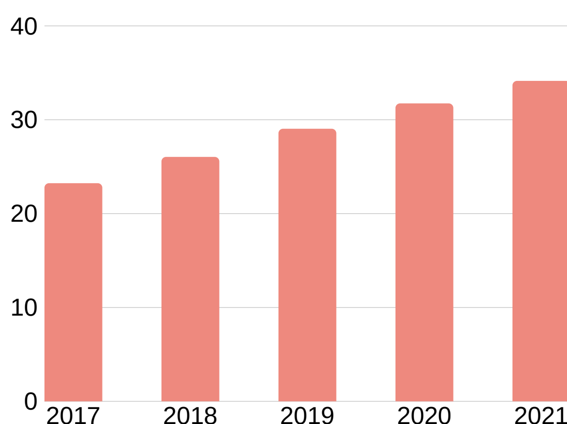
COST ANALYSIS

The cost of developing an application to cater to these needs can be quite high, ranging from Rs. 70 lakhs-3.5 crores.

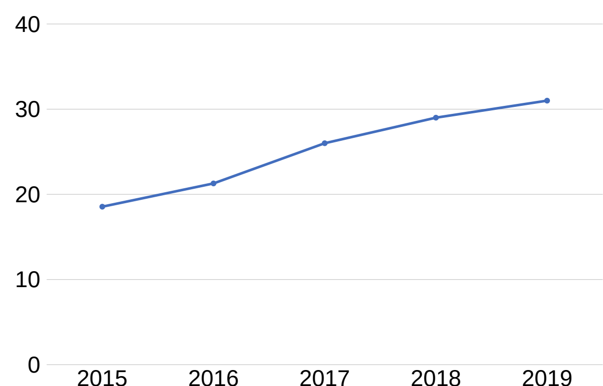
However, this is a one-time expenditure which shall reap benefits for years to come. Moreover, this might seem a petty amount compared to the expenditure that is incurred on the maintenance of Mohalla Clinics. The setting up of 1000 clinics (the government's target) would cost the government 200 crores while their maintenance would cost Rs. 50-70 crores a month.

Furthermore, the government had an allocation of Rs. 403 crores for Mohalla Clinics in the year 2018-19. In this light, the expenditure on developing the application is quite feasible and must be undertaken to improve overall working.

SMARTPHONE USAGE IN INDIA



MOBILE INTERNET PENETRATION IN INDIA



MAJOR RECOMMENDATION 3

MENTAL HEALTH

PROBLEM

An area where Mohalla Clinics have not ventured into yet is mental illness. Mental illness is something that people have increasingly come to recognise and Mohalla Clinics, the backbone of primary healthcare in Delhi, don't have any provisions to accommodate it within their ambit.

COST ANALYSIS

This shall require an additional expenditure of Rs. 5-6 lakhs for one Mohalla Clinic, thereby requiring an expenditure of Rs. 50-60 lakhs. Their maintenance shall set the government back by about Rs. 16-24 lakhs a month, thereby calling for an outlay of Rs. 2-3 crores a year.

SOLUTION

Separate Doctor for Mental Health
One of the possible things that can be done is providing for a separate doctor for mental health issues in the clinics. What the government can do is start with hiring separate doctors for mental health issues in 10 strategically selected clinics across Delhi, on a visiting basis, preferably 2 days a week.

Awareness
In addition to this, Mohalla Clinics should create extensive awareness about the issue. The doctors should openly talk to patients about it and refer them to the Mohalla Clinics with mental health provisions if they feel that they might need it. Posters about mental health should be put up in the waiting room of the clinic to make people more aware about the same.

Health Cess
The Union Government already levies a 4% health and education cess, however, this does not benefit the Government of Delhi which is responsible for Mohalla Clinics. Therefore, for the maintenance of existing clinics and the establishment of mental health provisions, levying a nominal 1% health cess on incomes exceeding Rs. 30 lakhs in the state could generate revenue and make it a sustainable model over time.

MAJOR RECOMMENDATION 4

FEMALE CENTRIC CAMPAIGNS

PROBLEM

In the zones where new clinics have come up, we noticed a lack of awareness. To increase the number of resident visits to the clinic, an effective means would be to target women, as through them, we can indirectly target their families as well.

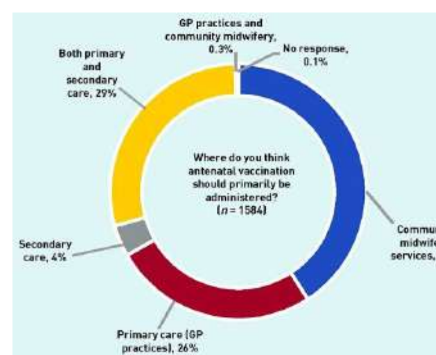
SOLUTION

The following are a few initiatives that we suggest which could increase awareness and trust among women regarding Mohalla Clinics:

Sanitary Napkin Dispensers: To push this female approach, the clinics can undertake a multidimensional campaign around menstrual hygiene. Sanitary napkin dispensers should be installed at all clinics and they should be made available free of cost. The government can target CSR funds for the same.

Compulsory Female Doctor once a week: This would serve the purpose of making women feel more comfortable. For these one-day-a-week type programmes, we recommend recruitment of new doctors for this purpose; doctors who want to help out in clinics but are unwilling to leave their full time jobs.

Security Guard: To make women feel safer and more comfortable at the clinics, we suggest stationing a security guard there. For clinics with just a morning slot, one security guard will be enough while for clinics with both morning as well as evening slots, two guards can be provisioned.



Print & Digital Campaigns: Television advertising, newspapers, billboards, awareness camps and pamphlets should try to portray middle-class women to create a sense of relatability.

Antenatal & Immunisation services: The clinics should also have facilities in place for check-ups for pregnant women on special female doctor days.Then, they will not have to go to crowded government hospitals.

MAJOR RECOMMENDATION 5

EVALUATION & REWARD SYSTEM

PROBLEM

More than half of the doctors and other health workers employed in the Mohalla Clinics are dissatisfied with the amount of their salaries and the late payment of the same.

SOLUTION

We recommend the government to follow the Pay For Performance (P4P) or "Value-Based Payment" model in Mohalla Clinics, which is a payment model that attaches financial incentives to metric-driven outcomes. This system has already been adopted by the Centers for Medicare and Medicaid Services (CMS) in the United States and NHS in the UK, where the performance of healthcare providers is assessed on the basis of some quality indicators. The Delhi Government should also develop a mechanism whereby the top, say 50, Mohalla Clinics are rewarded in the form of a bonus on a quarterly basis after evaluating them on certain metrics.

COST ANALYSIS

Assuming that the government allocates Rs. 3 crores towards bonus (approx. 2.7% of its existing salary expenditure to Mohalla Clinics), the top 50 Mohalla Clinics will get a bonus of 3,00,00,000/(4 X 50)= Rs. 1,50,000 quarterly. This amount will be paid on a monthly basis, i.e. Rs. 50,000 p.m. in the ratio of the salaries of the staff, calculated as follows:

Staff	Calculation	Amount
Doctor	50,000 X 20/35	28,500
Pharmacist	50,000 X 6/35	8,500
Multi purpose Worker	50,000 X 5/35	7,150
MCA	50,000 X 4/35	5,850

Approximate values have been taken

MAJOR RECOMMENDATION 6

INFRASTRUCTURAL REVAMP

PROBLEM

- Among the surveyed individuals, approximately **30%** were not satisfied with the infrastructural facilities of the clinics.
- The concerns were centered around **non-availability of drinking water and small waiting areas** with insufficient auxiliary infrastructure such as benches.
- Moreover, we found that a large number of old, previously opened clinics are in a dire need for **renovation**, as they lack the basic infrastructure to cater to the diverse needs of the patients.
- In addition, **disparities**, to a certain degree, pertaining to the availability of infrastructure have been observed between Mohalla Clinics of different regions. Some of the clinics experience **equipment shortage** while some have equipment sitting idle.

COST

- As per the data, if approximately 30-35% clinics lack drinking water facilities, then the tentative cost of installing water dispensers would be **Rs. 8.5 to 9 lakh rupees**. The monthly cost of water jars would be **Rs. 3500 per month per clinic**. (The average cost of a water dispenser ranges from Rs. 4500-5500. The cost of a 20-liter water jar is about Rs. 70-80.)

-The approximate cost of expansion would be around **Rs. 4-7 lakh rupees** per clinic, depending on the degree of expansion required. As far as infrastructural revamp is concerned, the cost would range approximately between **Rs. 50,000 to 1.5 lakh**.

SOLUTION

- The simplest solution to this would be a **comprehensive assessment** of the clinics in the regions where people have complaints based on metrics such as the average waiting period, the degree to which patients/staff members are satisfied with the infrastructure and the diseases people commonly suffer from.

- Upon assessment, the clinics can opt for:-

a. **Expansion**- where it is absolutely necessary.
b. In clinics where the situation can be improved by bringing in **necessary infrastructure** such as seats, benches, etc., the same should be done. This should be preceded by a careful cost-benefit evaluation.
c. Also, the necessary infrastructure should be **translocated from the clinics where it's unnecessary, to those where it is needed**. The direction of movement of the infrastructure can also be determined via periodic surveys.

- The government can also make budgetary room for installation of **drinking water dispensers and water supply** in the clinics which require them.

MAJOR RECOMMENDATION 7

SECONDARY HEALTHCARE

PROBLEM

In status quo, Mohalla Clinics offer only primary level healthcare facilities, i.e. general treatments and no ailment-specific ones, which makes it very difficult for the poor to afford secondary level (or ailment-specific) healthcare. They have to go to private hospitals which is financially problematic for them or visit government hospitals located far away, which is not feasible for them due to transport issues.

SOLUTION

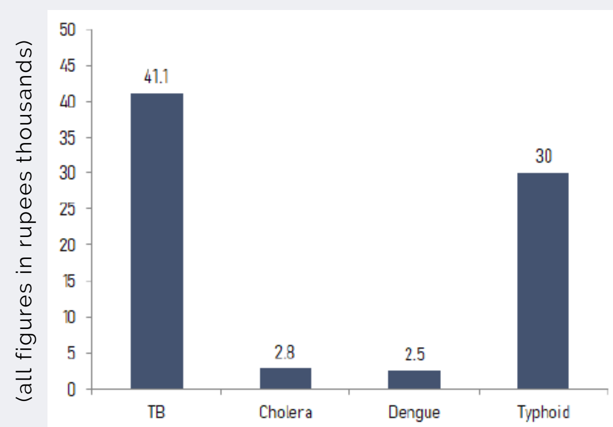
The Delhi Government has introduced a three-tier healthcare system and Polyclinics fall under the second level. Polyclinics are specialist OPDs where medicine and specialists such as gynaecologists and paediatricians are available every day. Orthopaedics, eye and ENT specialists are available on selected days of the week. The purpose of these clinics is to save patients from the hassle of visiting crowded hospitals and reduce the outpatient burden on government hospitals.

We recommend that diagnostic machines be made available at these polyclinics. Currently, there are around **26 polyclinics** in Delhi and the government is in the process of converting non-functional dispensaries to polyclinics. The government has proposed an outlay of **Rs 365 crore** for Mohalla Clinics and Polyclinics in FY 2020-21. On deeper analysis, we discovered that allocating a machine for a cluster of Mohalla Clinics would not work as a separate space would have to be created to put these machines in, which would imply an additional cost burden.

LOCATION OF POLYCLINICS

Polyclinics cannot be established in large numbers because of the capital required. The one factor identified on the basis of which these can be established is number of diseases per 100 people in a region. The regions are:

NDMC- The population is 6,254,758. The total number of cases for various diseases are: Dengue (2,504), Tuberculosis (41,197), Cholera (2,862) and Typhoid (30,098). This shows that the number of diseases per 100 of the population is 2 cases. This calls for a need to establish even more polyclinics in this region.



EDMC-The population is 1,707,725. The total percentage of diseases per 100 of the population is almost 2. This makes it very difficult for a single polyclinic to handle all the patients.

Central Delhi-The population is 582,320. Acute respiratory illness around 152,000, and many other life threatning diseases like encephalitis, malaria, etc. Additionally, given that half of the people live in near poverty, to provide them with ailment-specific treatments, more polyclinics shall be established in areas like Ajmeri Gate, Anand Parbat and Jama Masjid.

MAJOR RECOMMENDATION 8

MEDICAL EMERGENCIES

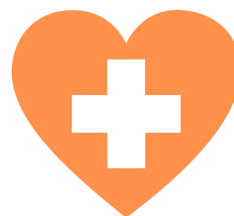
PROBLEM

- Till now, Mohalla Clinics in Delhi have focused only on **primary healthcare problems** in the localities.
- Apart from building necessary **infrastructure** as suggested before, the government can focus on the expansion of the services which these clinics provide.
- First of all, the clinics should start handling **medical emergencies** in the localities, at least in the immediate period after such an emergency till the necessary arrangements have been made for further treatment.
- The problem here is that the staff does not have appropriate **equipment and training** to handle medical emergencies.
- Also, there are complaints about how some clinics are not equipped with even **basic first-aid facilities.**

COST

- The Average First Aid Kit costs around **Rs. 300-400** and includes bandages, pins, gloves, tweezers, wipes, tapes, thermometers, antiseptics, etc. depending on the cost.

- Kits might have to be restocked on a weekly or fortnightly basis, depending on the usage of each clinic. This amounts to a yearly cost of around **Rs. 10400 - 20800** depending on cost and usage, per clinic.



SOLUTION

In order to ensure proper training and equipment for handling medical emergencies, we recommend the following:

- The government should work on providing emergency **first aid** facilities in the clinics so that they can cater to cases of injuries in the vicinity.
- About **40% of the patients** we surveyed felt that the clinics lack basic first aid facilities. Even in the recent Delhi riots, multiple cases came up where people suffering from **serious injuries** could not get immediate attention. Mohalla Clinics, with all their physical and human resources, could have handled such cases.
- For undertaking such skill-oriented programmes, the staff can have sessions **one day a week** for a quarter**.** One common place can be decided where the staff will have to go after the clinic has closed for the day to attend the sessions and gain the requisite skills. These programmes can be undertaken at **government hospitals,** by the senior staff there.

MAJOR RECOMMENDATION 9

STAFF RECOMMENDATIONS

PROBLEM

- **Absence of dedicated staff for sanitation-** Some Mohalla Clinics do not have the desired level of sanitation, mostly due to an overburdened multi-task worker.

- **No security guards in the clinic-** There is no restriction on the people who can visit the clinic, which is not a safe working environment for the staff. People under influence can also come into the clinic and commit inappropriate acts.

SOLUTION

- **Appointing a specific person for maintaining hygiene-** To reduce cost and ensure efficiency, one cleaner can be made responsible for the cleanliness of a group of Mohalla Clinics located in close proximity to one another, as appointing a person for each clinic separately would lead to a huge underutilisation of the funds and manpower. The clinics can be in a radius of 1-2 kms of one another, to make the travel between the clinics walkable.

- **Hiring a security guard for each Mohalla Clinic-** A guard can be hired for the operating hours (8:00 AM - 2:00 PM) ff the Mohalla Clinics to ensure the safety of the clinic and the staff. It would be the guard's responsibility to open and close the clinic on time.

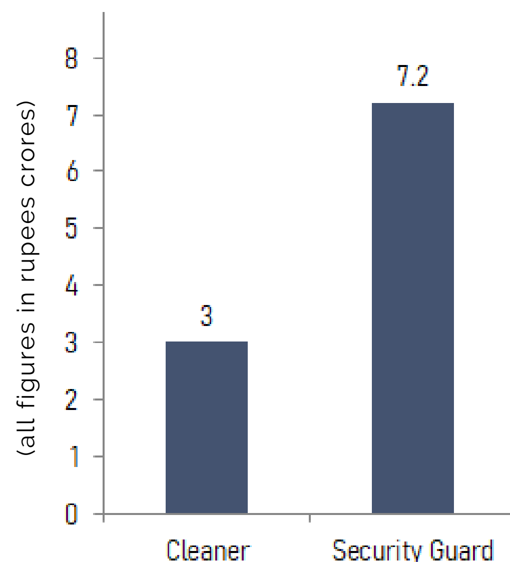
COST ANALYSIS

1) Cleaner-

- Number of Mohalla Clinics per cleaner (approximate) = 2
- Number of Mohalla Clinics (Aim) = 1000
- Total cost (per annum) = ₹3,00,00,00 (assuming the cost per cleaner to be ₹5,000)
- The total cost is approximately 0.8 % of the budget for Mohalla Clinics.

2) Security Guard-

- 1 security guard is needed per clinic
- Number of Mohalla Clinics (Aim) = 1000
- Cost of a security guard in Delhi = ₹6,000 per month
-Total cost (per annum) = ₹7.2 cr.
- The total cost is approximately 5% of the budget for Mohalla Clinics.



CONCLUSION

This research project entails an attempt to use evidence-based tools to understand how true the public glorification of the Mohalla Clinic system is. The mechanism followed to arrive at answers involved in-person surveying across the National Capital. Every chosen clinic, across the eight zones, involved the interview of both; doctor/staff as well as nearby residents.

The analysis of this data started with individual questions and correlations between questions within the same head, with even inter-head analysis being carried out. Often, the recommendations stemmed from what was observed to be missing and lacking from the services. The results and inferences from the survey have led us to offer broadly two categories of recommendations.

The first broad area of recommendation is the **need to bolster and revamp the existing infrastructural facilities.** In status quo, the Mohalla Clinics offer only primary healthcare services and lack diagnostic devices. In order to address this issue, the government can equip the upcoming Polyclinics with necessary diagnostic devices that cater to specific health problems of the patients.

Among the people we surveyed, about 30% were dissatisfied with the infrastructural facilities at the Mohalla Clinics. It was found that even though the feedback from existing clinics helped revamp the policy with respect to new clinics coming up, not much has been done to restructure clinics built in the initial phases of expansion.

Besides, Mohalla Clinics can increase their accessibility and enhance efficiency by creating a mobile application. The doctors will be able to keep a track of their patients' records and this will help in enhancing patient satisfaction. Moreover, the application can also focus on improving inter-clinic operability.

The survey also highlighted the discontentment among patients due to long queues and waiting time at the clinics. Furthermore, some clinics were overwhelmed by too many patients while the others witnessed very few patients.

Hence, data with respect to the population demographic can be put to use in deciding locations of upcoming clinics.

The second area of recommendations is the **expansion in the scope of medical services provided**. Results show that about 40% of the Mohalla Clinics lack basic first aid facilities. As such, clinics should start handling medical emergencies in the localities with adequate infrastructure and training.

Mohalla Clinics could also venture into mental health services. Separate doctors for mental health could be appointed in the clinics. The Union Government could also take steps to levy an additional 1% health cess on high-income brackets to make it a sustainable model over time.

The Mohalla Clinics survey also reveals a lack of awareness in the zones where new clinics have come up. An effective means to overcome this could be to take up more women-centric campaigns. Probable recommendations include the installation of sanitary napkin dispensers, compulsory presence of female doctors on specific days, print and digital campaigns and the appointment of security guards.

All in all, the project fulfilled its aim of analysing the role played by Mohalla Clinics in Delhi's healthcare. While the overall trend revealed was positive, there is further scope to impact many more people in a plethora of ways. The Mohalla concept is the start of a possible revolution, one that needs to be, and is yet to be taken all the way.

TIMELINE

QUESTIONNAIRE

The questionnaire was divided into two main parts:

Doctors: The questions asked to the doctors comprised the following heads:
a. Experience and Qualification
b. Salary
c. Staff, Medicine and Equipment Adequacy
d. Patient Demographics

Residents: The questions asked to the residents comprised the following heads:
a. Clinic Interaction
b. Quality of Treatment
c. Medicines, Tests and Facilities available

Questionnaire Link:
https://docs.google.com/forms/d/e/1FAIpQLSftD83VpumeFanQ2Pzo1QdN8LfJVyFZ9znZNrB_1lyJeGpWOQ/viewform?usp=sf_link

*The year in the timeline for 'Report Writing' was inadvertently mentioned as 2019, now corrected.

REFERENCES

INTRODUCTION:

1. Times of India, Delhi CM Arvind Kejriwal inaugurates 152 mohalla clinics, viewed March 2020, https://timesofindia.indiatimes.com/city/delhi/cm-inaugurates-152-mohalla-clinics/articleshow/73114159.cms

2. India Spend, AAMCs, what has worked, what hasn't, viewed March 2020, https://www.indiaspend.com/aam-aadmi-mohalla-clinics-what-has-worked-what-hasnt/

3. Times of India, Delhi government looks to expand Mohalla Clinic reach, viewed March 2020, https://timesofindia.indiatimes.com/city/delhi/govt-looks-to-expand-mohalla-clinic-reach/articleshow/74233358.cms

4. New Indian Express, Delhi Mohalla Clinics cross 300-mark, target 1,000, viewed March 2020, https://www.newindianexpress.com/good-news/2019/oct/20/delhi-mohalla-clinics-cross-300-mark-target-1000-2050471.html

5. Express Health, Delhi Government's three tier healthcare system will enhance public health, viewed March 2020, https://www.expresshealthcare.in/health-policies/delhi-governments-three-tier-healthcare-system-will-enhance-public-health/393194/

6. Health Analytics, Asia, How Delhi's AAP government fared on its health manifesto, viewed March 2020, https://www.ha-asia.com/how-delhis-aap-government-fared-on-its-health-manifesto/

7. The Hindu, AAP Government Health Scheme helped 142 lakh patients, viewed March 2020, https://www.thehindu.com/news/cities/Delhi/aap-govt-health-schemes-helped-142-lakh-patients/article29599511.ece

8. Hindustan Times, Delhi Government's ambitious health plan yet to start, viewed March 2020, https://www.hindustantimes.com/delhi-news/delhi-government-s-ambitious-health-plan-yet-to-start/story-t87XUVwfPuqKljizkwfpGK.html

9. New Indian Express, Delhi Government to expand scheme for free treatment at private hospitals, viewed March 2020, https://www.newindianexpress.com/cities/delhi/2019/sep/18/delhi-government-to-expand-scheme-for-free-treatment-at-private-hospitals-2035379.html

10. Government of Delhi, Brief write up on Aam Aadmi Mohalla Clinics, viewed March 2020, http://health.delhigovt.nic.in/wps/wcm/connect/doit_health/Health/Home/Directorate+General+of+Health+Services/Aam+Aadmi+Mohalla+Clinics

LITERATURE REVIEW:

1. Hindustan Times, 7 reasons why world leaders are talking about Delhi's Mohalla Clinics, viewed October 2019, https://www.hindustantimes.com/delhi/7-reasons-why-world-leaders-are-talking-about-delhi-s-mohalla-clinics/story-sw4lUjQQ2rj2ZA6ISCUbtM.html

2. Youtube, ABP News investigates success of Mohalla Clinic in Peeragadi, viewed October 2019, https://youtu.be/MYwaggCxkfg

3. Hindustan Times, AAP Government two year report card, viewed October 2019, https://m.hindustantimes.com/interactives/aap-government-two-years-report-card/

4. Financial Express, Delhi Budget 2019-20: Arvind Kejriwal's favourite 'Mohalla Clinic scheme' gets little attention, viewed October 2019, https://www.financialexpress.com/economy/delhi-budget-2019-20-arvind-kejriwals-favourite-mohalla-clinic-scheme-gets-little-attention/1499889/

5. Al Jazeera, Modicare and Mohalla Clinics: Assessing India's two health models, viewed October 2019, https://www.aljazeera.com/news/2019/05/modicare-mohalla-clinics-assessing-india-health-models-190513195837330.html

6. The Citizen, Mohalla Clinics a Relief for Patients, But the Staff Have a Different Story to Tell, viewed October 2019, https://www.thecitizen.in/index.php/en/NewsDetail/index/15/17192/Mohalla-Clinics-a-Relief-for-Patients-But-the-Staff-Have-a-Different-Story-to-Tell

7. NCBI, PMC, Mohalla Clinics of Delhi, India: Could these become platform to strengthen primary healthcare, viewed October 2019, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5629869/

8. Daily Pioneer, Delhi government to open 140 new Mohalla Clinics by September end, viewed October 2019, https://www.dailypioneer.com/2019/page1/delhi-govt-to-open-140-new-mohalla-clinics-by-sep-end.html

9. Global Health Governance, Mohalla Clinics in India, a scalable model for achieving universal health coverage, viewed October 2019, http://globalhealthgovernance.org/blog/2017/4/3/mohalla-clinics-in-india-a-scalable-model-for-achieving-universal-health-coverage

10. Aam Aadmi Party, AAP Manifesto 2015, viewed October 2019, https://aamaadmiparty.org/delhi-government-2/aap-manifesto-2015/

11. Daily Mail, AAP's ambitious mohalla clinics under scanner as L-G shoots down the proposal of running it inside state-run schools, viewed October 2019, https://www.dailymail.co.uk/indiahome/indianews/article-3907036/AAP-s-ambitious-mohalla-clinics-scanner-L-G-shoots-proposal-running-inside-state-run-schools.html

12. Millenium Post, Mohalla Clinics to outsource various tests; tenders issued, viewed october 2019, http://www.millenniumpost.in/delhi/mohalla-clinics-to-outsource-various-tests-tenders-issued-363811

RECOMMENDATIONS:

1. **Location Mapping:**

Census India 2011, Data Sheet- PCA Districts NCT of Delhi , viewed March 2020, http://censusindia.gov.in/2011census/PCA/PCA_Highlights/pca_highlights_file/Delhi/DATA_SHEET_PCA_DISTRICTS_NCT_OF_DELHI.pdf

2. Application:

(A) Think Mobiles, How much does it cost to make an app, viewed March 2020, https://thinkmobiles.com/blog/how-much-cost-make-app/
(B) First Post, Delhi budget: AAP government allocates Rs 6,729 crore for health sector, including Rs 403 crore for mohalla clinics, viewed March 2020, https://www.firstpost.com/india/delhi-budget-aap-government-allocates-rs-6729-crore-for-health-sector-including-rs-403-crore-for-mohalla-clinics-4400989.html
(C)Statista, Smartphone penetration in India, viewed March 2020, https://www.statista.com/statistics/257048/smartphone-user-penetration-in-india/
(D) Statista, Internet penetration in India, viewed March 2020, https://www.statista.com/statistics/309019/india-mobile-phone-internet-user-penetration/

3. Evaluation System:

NCBI, PMC, An Analysis of Pay-for-Performance Schemes and Their Potential Impacts on Health Systems and Outcomes for Patients, viewed March 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6607710/

4. Infra Restructuring:

(A) The Hindu Businessline, Mohalla Clinics- A viable primary care model, viewed March 2020, https://www.thehindubusinessline.com/opinion/columns/mohalla-clinics-a-viable-primary-care-model/article30099666.ece#
(B) Euro Asia Publication, Health Infrastructure: A study of Mohalla Clinics, viewed March 2020, http://euroasiapub.org/wp-content/uploads/2017/06/16ESSMay-4963.pdf

5. Secondary Healthcare:

(A) Outlook India, Delhi government allocates Rs. 7704 crore for health sector, viewed March 2020, https://www.outlookindia.com/newsscroll/delhi-govt-allocates-rs-7704-crore-for-health-sector/1777911

(B) New Indian Express, Delhi Government turning dispensaries to Poly Clinics, viewed March 2020, https://www.newindianexpress.com/cities/delhi/2019/oct/02/delhi-government-turning-dispensaries-to-polyclinics-2042045.html

(C) Praja. org, Report on The State of Health in Delhi, viewed March 2020, https://www.praja.org/praja_docs/praja_downloads/Report%20on%20The%20State%20of%20Health%20in%20Delhi.pdf

6. Medical Emergencies:

First Aid Store, Cost of consumer first aid kits, viewed March 2020, https://first-aid-store.com/first-aid-products-and-supplies/consumer-first-aid-kits-bags/all-purpose-first-aid-kits/all-purpose-first-aid-kit-48-pc-medium.html

7. Staff Recommendations:

Indeed, Security Guard salaries in Delhi, https://www.indeed.co.in/salaries/security-guard-Salaries,-Delhi-DL

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