

# **STUDY OF HEALTH CLINICS IN GAS AFFECTED BHOPAL**

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## **BACKGROUND**

Bhopal is a city faced with a healthcare crisis. Struggling to deal with the aftermath of a 40 tonne leak of deadly MIC gas 18 years ago, an estimated 150,000 are living with long term gas-related health problems. The trauma of the leak has itself been matched by the ongoing negligence displayed towards victims with regards to healthcare. The private health clinic, throughout India a crucial part of healthcare for the working class, has a special role to play in the city of Bhopal. Dealing with the long-term health problems of a large percentage of the cities poor slum dwellers, health clinics are for many gas victims the daily form of healthcare. Easily accessible and inexpensive, they are a common choice.

## **OBJECTIVES OF STUDY**

The main objective of this study was to find out how private health clinics in gas-affected Bhopal operate on a day-to-day basis. The aim was to examine what general trends exist amongst the community of doctors who run these clinics, most importantly how patients are treated and how the doctors see healthcare in Bhopal with regards to the gas disaster. Having analysed the findings, the aim is to suggest possible solutions and areas worthy of further scrutiny.

## **HOW RESEARCH WAS UNDERTAKEN**

Over a period of six days, eighteen health clinics were visited in the gas-affected areas of Chola, Berasia Rd, Qazi Camp and Tilazamalpur. These areas were chosen for their proximity to the most severely gas-affected communities, and also because of the unusually high concentration of health clinics in operation there. Doctors were interviewed and asked to answer a range of questions concerning their clinic, their patients and their treatment protocol. The duration of each interview was approximately one hour, and interviews were generally held in the manner of an informal conversation. I approached doctors as a student carrying out independent research. Whilst some doctors flatly refused to talk to me, the majority were willing, and after a few minutes of initial suspicion about my motives, began to answer my questions.

## **LIMITS OF THE STUDY**

There are undoubtedly a number of problems with a study such as the one I have attempted to undertake. The fact that all findings are based on the answers doctors gave in a series of informal interviews has a number of drawbacks; the findings are the basis of opinion and as such must not be taken as hard factual evidence. It is hard to ascertain the degree to which doctors might have been exaggerating problems, or bending their answers to suit their own purposes. However, the purpose of this study is not to provide hard facts as such, but merely to facilitate a greater degree of understanding with regards to how private health clinics are run, and the repercussions that this is likely to have on the health of the gas-affected.

## **FINDINGS**

The findings of the study are displayed below and represent the answers given by the eighteen doctors who were interviewed.

### **1. Clinic age**

The age of clinics ranged from 2 months to 36 years. In total, 40% of the clinics visited were open before the gas leak in 1984. 5 clinics had been open for between 0-5 years, 6 had been open for between 5-20 years, and 7 had been open for more than 20 years. Of these 7, 3 clinics had been open for 35 or more years.

### **2. Opening hours**

Trends in clinic opening hours did much to reaffirm the image of the private health clinic as an easily accessible place for treatment – 14 clinics were open for 7 days a week, and the rest for 6. In terms of opening hours, the clinics fell into one of two categories. Generally, clinics were either open for a period of around 12 hours from 9am-9pm, or they opened for a morning shift from 9am-12am and then remained closed until the evening time, reopening between 6pm-10pm. What became apparent quite quickly however, was that opening times and the presence of a doctor generally didn't mean the same thing. In a number of clinics, for example Laxshdeep Muskan Hospital on Chola Road, the clinic stayed open all day, yet the doctor only came between 10am and 12am. When asking if I could speak to the doctor, I was commonly told to 'come back later' by people working inside clinics. Whilst in some cases this was undoubtedly a tactic to avoid answering my questions, in the majority of clinics this genuinely was because the doctor wasn't present. This leads to the obvious question of exactly *who* these people are who run the clinic whilst the doctor isn't present. In 2 clinics I was told, 'come back later, the doctor isn't in' by people administering injections and prescribing medicines to patients. When I returned in the evening I spoke to the doctor, a completely different person. The concern here is that many of the clinics operate without the presence of a doctor for the majority of their opening hours, leaving the diagnosis and treatment of patients in the hands of unqualified assistants.

### **3. Number of patients seen per day**

The number of patients seen per day ranged from 4-200 – the wide range presented is clearly a reflection on the varied opening times adopted by clinics. Figures of between 4-10 patients were given by clinics open for no longer than 3 hours per day. For clinics open both in the morning and evening and for those open all day, figures generally ranged from around 20-50 patients per day. No clinic estimated more than 60 per day, except for the Singhai Clinic on Chola Road, with an estimated 200 patients per day. This clinic was considerably bigger than most of the other clinics visited during the study, and had an adjacent room with roughly 6 beds on which patients could lie.

Assuming that around 40 clinics are in operation within gas affected areas (a conservative estimate), each receiving on average 30 patients per day, then we can calculate a figure of 1200 patients per day visiting private clinics. It is likely that a significant number of gas-affected patients will visit the clinics located near the centre of Bhopal surrounding Hamidia Road due to their proximity to places of work etc. Whilst this study dealt only dealt with clinics in a number of gas-

affected areas, the sheer proliferation of private clinics throughout Bhopal is undoubtedly an indicator that per day, clinics treat as many patients as the cities' larger hospitals.

#### **4. Location of patient base**

Findings from the study do much to support the notion of private health clinics as places most frequented by the residents of nearby bustees and areas of poverty. All 18 doctors visited regarded the majority of their patients as residents of neighboring bustees, and almost all doctors commented on the problem of poverty when talking about their patients. 3 doctors expanded their patient base to include villages outside of Bhopal, only one doctor claimed to have patients from all areas of Bhopal.

#### **5. Patient symptoms**

Doctors were asked to specify what trends existed in the age and sex of their patients, and how symptoms varied between age and sex. Responses were vague, with 16 doctors refuting the existence of any trends, claiming that 'all types' visited their clinic, and that in general the same symptoms were evident throughout the range of age and sex. Of the remaining 2 clinics, the doctors regarded the majority of their patients as women, and generally dealt with gynecological problems. The general response to this question is an indicator that most doctors fail to separate patients into age and sex brackets with regards to both diagnosis and treatment – consequentially the specific needs of certain categories are disregarded in favour of a 'blanket' approach that covers all possibilities.

When asked to name the most common symptoms displayed by patients, doctors gave the following answers:

Common cold and coughs (13)

Fever (11)

Chest and respiratory problems including asthma and bronchitis (8)

Menstrual problems, most commonly menstrual irregularity (8)

Stomach problems such as loose motion and dysentery (5)

Malaria (5)

Eye problems such as conjunctivitis (3)

Liver problems (2)

Joint problems (2)

Ear problems (1)

Pneumonia (1)

Anxiety/Ghabarat (1)

Hypertension (1)

#### **6. Patients symptoms and the role of MIC**

Doctors were then asked for their opinion regarding the role of MIC gas poisoning in the symptoms displayed by patients. 2 doctors completely rejected the notion that the gas was a cause of health problems amongst the people of Bhopal. Whilst one of these doctors was an unprofessional, unqualified doctor who knew little about medicine in general, the other doctor, Anil Tilwani, was qualified, and ran one of the busiest clinics on Chola Road. He was quick to dismiss claims of widespread gas-related symptoms as 'propaganda...', and stated forcefully that 'there are no gas victims at all below the age of 50 years...'. Tilwani's opinions worried me a great deal, and I found

that many doctors followed a similar pattern of thought to varying degrees. It was common for doctors to regard gas related illness as a problem faced only by those of old age; Dr Prakash Issrani in Chola Road talked of ‘a new generation’ of young patients, for whom gas related symptoms weren’t an issue – he claimed that gas-affected patients made up a mere 50% of his older patients. The Shri Clinic in Tilazamalpur and the Farheen Clinic on Chola Road were two other places where I was told in no uncertain terms that no children were facing health problems with regards to the gas. It is undoubtedly the case that many doctors are uninformed about the continuing toxic legacy of MIC in Bhopal – the widespread belief that it is a ‘problem of the past generation’ is a serious concern.

In general however, there was a certain degree of agreement amongst doctors that the legacy of 1984 was still a prominent feature of healthcare in the city. In total, 10 doctors regarded the gas-affected as the majority of their patients; Dr N Singhai, situated on Chola Road, estimated that amongst his patients an overwhelming 90% were coming with gas-related health problems. In general, it was clinics opened prior to the disaster that put the most emphasis upon the problem of gas-related health issues, whereas the more recent clinics displayed varying attitudes toward the gravity of the effects upon the health of the MIC-exposed. Doctors with experience before 1984 generally commented on how trends in patients’ health problems had changed after the gas leak; Dr Kishan Lal of the New Veenu Clinic on Chola Road had been working in the area since 1968, and claimed that respiratory problems have skyrocketed in the 18 years since the disaster. For many doctors, it was problems of endemic poverty rather than gas-related illness that formed the basis of their patient’s health problems; Dr Tilwani was adamant that Chola’s healthcare network was dealing with universal issues of poverty such as lack of sanitation and unclean water, and that patients with identical symptoms would exist in neighborhoods like this throughout the world. Even for doctors who did emphasize the issue of gas-related illness, they were generally keen to stress the crucial role of problems resulting from impoverished living conditions.

## **7. Perceived effects of MIC exposure**

Doctors were asked their opinion on how exposure to the MIC gas had affected people’s health – what were the main symptoms caused by MIC exposure, and how it affected the different organs in the body. Only 4 doctors seemed familiar with the term ‘MIC gas’, and were able to talk about the effects in accurate comprehensive terms. Each of these four doctors explained how MIC had affected every part of the body by finding its way into the patients’ blood stream and tissues. Two of these doctors, one being Dr KP Soni of the Care and Cure Clinic in Berasia Road, talked of a reduced resistance to disease that combined with poverty to cause a major health crisis amongst the gas-affected communities. Generally however, the majority of the remaining doctors failed to describe the effects of MIC exposure in accurate terms, and were only able to list a number of perceived gas related symptoms, without any form of medical explanation.

When asked to explain the symptoms of MIC exposure, the following were mentioned:

- Respiratory, lung and chest problems (12)
- Eye problems (9)
- Menstrual problems (5)
- Anxiety/Ghabarat (3)
- Stomach problems including dysentery and loose motion (2)
- Hypertension (2)
- Fever (2)
- Liver problems (1)

Joint problems (1)  
Fatigue/weakness (1)  
Cardiovascular problems (1)  
Kidney problems (1)

It is clear from these answers that few doctors were able to provide a comprehensive list of the symptoms of MIC exposure. Most focused solely on respiratory problems, and even in this area were vague in their description of the exact type of problems encountered. The general lack of knowledge concerning the full effects of MIC exposure is a grave concern; it will only serve to further prevent the gas-affected population of Bhopal from receiving adequate treatment for the wide range of long-term health problems they face.

## **8. Treatment protocol**

After discussing their patients and the range of health problems within local communities, conversation turned towards the kind of treatment administered in the clinic. Doctors were asked first of all what type of medicines are most frequently administered in the clinic. Allopathy was undoubtedly the favoured method of treatment in the clinics; 9 doctors used solely allopathic medicines, and a further 4 favoured allopathic but occasionally used ayurvedic medicines. 3 doctors used homeopathic treatment and 2 used solely ayurvedic. A number of reasons were given for the widespread use of allopathy - Dr VK Anand of the Anand Clinic on Chola road claimed that allopathic drugs such as antibiotics were commonly used because they gave the quickest results - GS Hameshal clinic on Berasia Road echoed this sentiment when he informed me of his opinion that many homeopathic doctors were switching to allopathy for its qualities of 'instant relief'. The sheer number of dispensaries dealing in allopathic drugs in and around the areas visited is undoubtedly another major reason for the tendency to favour allopathic treatment.

### **-Length of prescription**

When asked about the length of the average course of treatment administered to patients, figures ranged from 1 day to 1 week. 8 doctors prescribed just one day of medicine to patients, the remaining doctors prescribed between 2-3 days, and two doctors prescribed 4-5 days. The reasoning behind the tendency to prescribe such short courses of treatment was commonly attributed to the patients' inability to afford anything longer than a few days of medicine at one time. The trend towards short dosages of allopathic drugs such as antibiotics was therefore striking during the course of this study, and it is a concern since the capacity of such a treatment protocol in dealing with long-term health problems is limited at best.

### **-Cost of consultation**

Clinics generally fell into one of two categories – those that prescribe medicines, and those that dispense medicines. Dispensing clinics were often run as glorified chemists – after a brief examination by stethoscope, a handful of drugs were passed over and for a sum of roughly 10 rupees the patient left with a 1 day course. The trend seemed to be that in non-dispensing chemists, the doctor would charge a figure of around 20 rupees, purely as a consultation fee. Such was the case in Dr Sheli's clinic in Qazi Camp. She complained that unqualified 'quacks' were taking the business away from qualified doctors like herself, purely because they were willing to consult and dispense for around 10 rupees. A commonly voiced concern amongst qualified doctors who didn't dispense medicines themselves was that the dispensing clinics often use low quality or fake medicines to cut their costs. This point was brought up by Dr VK Anand on Chola Road amongst others. The implications of such an activity are clear, and it is an area that demands closer research.

### -Commonly Prescribed Drugs

Having asked a few general questions about treatment protocol, I attempted to find out exactly what drugs were most popularly prescribed in each clinic. The response to such probing varied greatly - a number of doctors were extremely reluctant to divulge such information, insisting that treatment was 'symptomatic' and refusing to say more. Others were however more cooperative, and the following results were collected by asking doctors how they generally dealt with a variety of symptoms.

#### General Pain:

The most commonly administered painkillers were aspirin, paracetamol and ibuprofen, often prescribe in combination. A considerable number of doctors also chose to administer antibiotics for general pain relief, commonly choosing ciprofloxacin and doxycycline. Two doctors mentioned the use of Valium for common pain relief.

#### Chest and Respiratory problems:

Antibiotics, cough syrups and bronchodilators were the most common form of drugs administered for chest and respiratory problems. The most frequently named antibiotics were amoxicillin and cefadroxil. Cefadroxil is however primarily used to treat urinary tract and throat infections; the recommended course is at least one week, yet as was mentioned earlier, antibiotics are generally administered for just a single day. The majority of clinics had a large range of cough syrups, most commonly benadryl expectorant. Syrups often looked cheap and rarely displayed a list of ingredients on their packaging. Doctors who mentioned other drugs named corticosteroids, dexamethasone and chlorpheniramine, used for the treatment of allergies and asthma.

#### Fever:

For the treatment of fever all doctors who divulged information seemed to use a combination of painkillers such as ibuprofen and paracetamol with antibiotics – all doctors were using ciprofloxacin as the antibiotic of choice. It was common for doctors to administer up to 3 different types of painkiller, for example disprin, paracetamol and ibuprofen, together. This mixing of medicines, administered to patients without any form of advice, is a grave concern.

#### Menstrual Problems:

Doctors favoured a wide variety of tonics and syrups for the treatment of menstrual problems. Iron and calcium tonics were popular – it was common for allopathic doctors to treat menstrual problems with ayurvedic medicines. Ashoka syrups, produced in India by BVP and PRL were the most commonly stocked drugs for the treatment of menstrual problems. Femiplex ayurvedic tablets were also used in a number of clinics. As with the treatment of chest and respiratory problems, the beneficial qualities of many of the syrups looked questionable, and again a large majority failed to display an ingredients list.

#### Eye Problems:

Eye drops were used by all doctors who talked about the treatment of eye problems – pyrimon and betanazol were the most commonly prescribed brands. One doctor claimed to use ciprofloxacin to treat eye infections.

#### Liver Problems:

Few doctors chose to comment on their treatment of liver problems, the majority of those who did mentioned the ayurvedic syrup Live 52 as their principle form of treatment. Other ayurvedic syrups mentioned were G-Liv and Pro-Liv.

### General Comments:

The doctors' responses to my questioning surrounding their most commonly prescribed drugs bring up a number of important issues. The widespread mixing of numerous different types of drugs, in particular antibiotics and painkillers, is a cause for concern. In one clinic I visited, the doctor was using a mortar and pestle to crush 4 different types of painkiller into a chalk, which he proceeded to give to a 15 month old child. Combining with this issue is the problem already raised that patients are rarely given the recommended full course of medicines, which is in many cases likely to prevent effective treatment. In general, their responses seem to further clarify private clinics as wholly ineffective in dealing with the complex long-term health demands of the gas-affected.

### -Follow-up treatment

Doctors were asked how they deal with patients who return after the treatment has failed to bring relief. Here, the general response again uncovered deep inadequacies within the treatment protocol - only 3 doctors showed any sign of an organised system of follow-up treatment. Dr Sheli in Qazi Camp stressed the importance of regular check-ups for a period of one month for all gynaecological problems, whilst Dr Kishan Lal of the New Veenu Clinic on Chola Road made all returning patients take a series of radiology and pathology tests. The majority of doctors failed to offer effective follow-up treatment, generally opting for a repeat one-day prescription of antibiotics. It seemed common practise to administer an antibiotic injection to patients returning with problems that a course of tablets had not managed to fix. The widespread failure to keep any form of records concerning patients' medical history is the major stumbling block for administering effective follow-up treatment - astonishingly, only 3 doctors kept adequate medical records cataloguing the date, patient name, symptoms and treatment administered. 1 of these doctors had allotted each patient a 'serial number', but such a system was not in operation anywhere else. Often the only record of treatment was a scrawled note for the patient to hand over to a dispensing chemist, quickly lost and forgotten. This widespread failure to accurately catalogue medical records has major consequences for healthcare in gas-affected Bhopal. The long-term nature of many of the gas-affected's health problems calls for a close monitor of past treatment - without such careful consideration, the scope for inappropriate treatment is vast.

### -Referrals

If symptoms remained after two consecutive visits, it was common for doctors to refer their patients to a hospital for further treatment. Doctors were generally vague about which hospitals they referred patients to, but the most common choice seemed to be Hamidia Hospital, as well as private nursing homes. With regards to referrals, inadequate patient records are again a major cause for concern - it seems to be the case that the clinics have no form of communication with the larger hospitals through which they can be informed of a patients' medical history. Patients were generally given a phone number by the clinic and told to leave - this cold, impersonal treatment was a feature of almost all the clinics I visited. Without adequate communication between clinics and larger healthcare centres such as nursing homes and hospitals, referral by clinics is only likely to further delay patient's access to effective treatment.

## **9. Medical Representatives**

Doctors were asked a number of questions concerning medical representatives from drug companies. All doctors commented on the reasonably regular visits of medical representatives - figures ranged from 1 per month, to 5 per week, but were generally around 1 per week. A wide variety of drug companies were named, but a few seemed to dominate. Himalaya, an Indian company specialising in ayurvedic medicine, and Sipla, and Indian-based manufacturer of

allopathic medicines were the most commonly mentioned companies. Other companies were Glaxo, Ranbaxi, Olympic and Beyer. A number of doctors such as DR VK Sahu of the Vikash Clinic, Chola Road, bought all their medicines from local dispensing chemists rather than visiting representatives. However, the general trend is undoubtedly that medical representatives play an active role in the day-to-day dealings of private health clinics in Bhopal.

### **SUGGESTED AREAS FOR IMPROVEMENT**

Healthcare in private health clinics in Bhopal is inadequate in a number of ways;

- Doctors are often unqualified and/or operating as a business rather than a place of treatment.
- Doctors fail to keep adequate patient records and have no idea of a patients' medical history
- Treatment generally revolves around short-term doses of allopathic medicine
- Medicines are often mixed together and given without adequate information
- Doctors do not have an adequate understanding of how MIC has affected gas victims
- Doctors are unaware of many of the long-term health problems related to MIC exposure

These are factors that combine to form a major stumbling block towards effective treatment. In order to improve the healthcare situation in private health clinics,

- Doctors must be educated on the effects of MIC to realise that an ongoing crisis exists
- Pressure must be placed on doctors to begin adequate record keeping
- A system of greater communication must be established between clinics and hospitals
- Pressure must be put to weed out unqualified doctors
- Patients must be educated about healthcare and medicines and encouraged to keep records themselves.