

**Summer Training at
Population Foundation of India, Delhi
(April - June, 2013)**

**DISEASE PROFILE, HEALTH SEEKING BEHAVIOR AND
OUT OF POCKET EXPENDITURE IN CHILDREN UNDER 5
YEARS IN URBAN SLUMS OF JAIPUR, RAJASTHAN**

**By
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**Under the guidance of
Dr. Suresh Joshi**

**Post Graduate Diploma in Hospital and Health Management
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**Institute of Health Management Research,
Jaipur
2013**

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CERTIFICATE

This is to certify that **Dr. Sankshipta Kanwar** student of the 17th batch of the Post Graduate Diploma in Health and Hospital Management (PGDHM) at Institute of Health Management and Research, Jaipur underwent the summer internship at **Population Foundation of India, Delhi** from April 8th to June 8th 2013 and performed study on **Disease profile, health seeking behaviour and Out of Pocket expenditure in children under 5 years in urban slums of Jaipur, Rajasthan.**

The candidate successfully carried out the study assigned to her during summer training and her approach to the study was sincere, scientific and analytical.

We wish her success in all her future endeavours.



Dr Ashok Kaushik
Dean(academics and student affairs)
IIHMR,JAIPUR



Prof. Suresh Joshi
Professor
IIHMR,JAIPUR



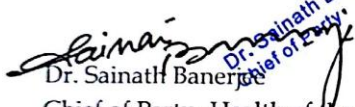
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To whomsoever it may concern

This is to certify that Dr. Sankshipta Kanwar, student of Institute of Health Management Research, Jaipur has done her summer training on the topic "Morbidity Prevalence, Treatment Seeking Pattern and Out-of-Pocket Expenditure in children under five years of age- A Cross-sectional study of Jaipur slums" with Health of the Urban Poor (HUP) Program, Population Foundation of India, New Delhi from April 8, 2013 to June 17, 2013.

She herself carried out all the activities related to her summer training and was extremely committed, sincere, hard working and diligent. Her approach towards the study has been scientific and analytical.

We wish her success in all her future endeavors.


Dr. Sainath Banerjee
Chief of Party
Chief of Party- Health of the Urban Poor (HUP) Program
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CONTENTS

- 1) ACKNOWLEDGEMENT**
- 2) INTRODUCTION TO ORGANISATION**
- 3) BACKGROUND AND RATIONALE**
- 4) OBJECTIVES**
- 5) STUDY METHODOLOGY**
- 6) STUDY SITES**
- 7) FINDINGS OF STUDY**
- 8) LIMITATION OF STUDY**
- 9) CONCLUSION**
- 10) ANNEXURES**

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My thanks and appreciations also go to my colleague especially to Dr. Tanvi Chauhan in developing the project and people who have willingly helped me out with their abilities.

**June 2013,
NEW DELHI**

Sankshipta Kanwar

Observation Learning:

Introduction

Population Foundation of India (PFI) is a national non-government organization at the forefront of policy advocacy and research on population issues in the country. PFI was established in 1970 by a group of socially committed industrialists led by Mr. J.R.D. Tata and Dr Bharat Ram. It has kept pace with the times, facing new challenges and changing perspectives through periodic reviews of its objectives, processes and achievements to make itself relevant to the people it serves.

Vision

Promoting, Fostering and Inspiring sustainable and balanced human development with a focus on population stabilization through an enabling environment for an ascending quality of life with equity and justice.

Mission

We will strive to realize our Vision by promoting and formulating gender sensitive and rights based population and development policies, strategies and programs.

Area of Focus

- 1) Reproductive and Child Health (RCH),
- 2) Family Planning,
- 3) Adolescent Reproductive and Sexual Health (ARSH),
- 4) HIV/AIDS,
- 5) ***Urban Health.***

The purpose of “Health of the Urban Poor”(HUP) project is to support the achievement of improved delivery of a comprehensive package of maternal and child health and nutrition interventions including the promotion of water supply, sanitation and hygiene services to urban poor communities.

Partner/Implementing Organizations

Supported by USAID-India

Prime recipient: Population Foundation of India

Sub-recipient: Plan/India and IIHMR (Jaipur)

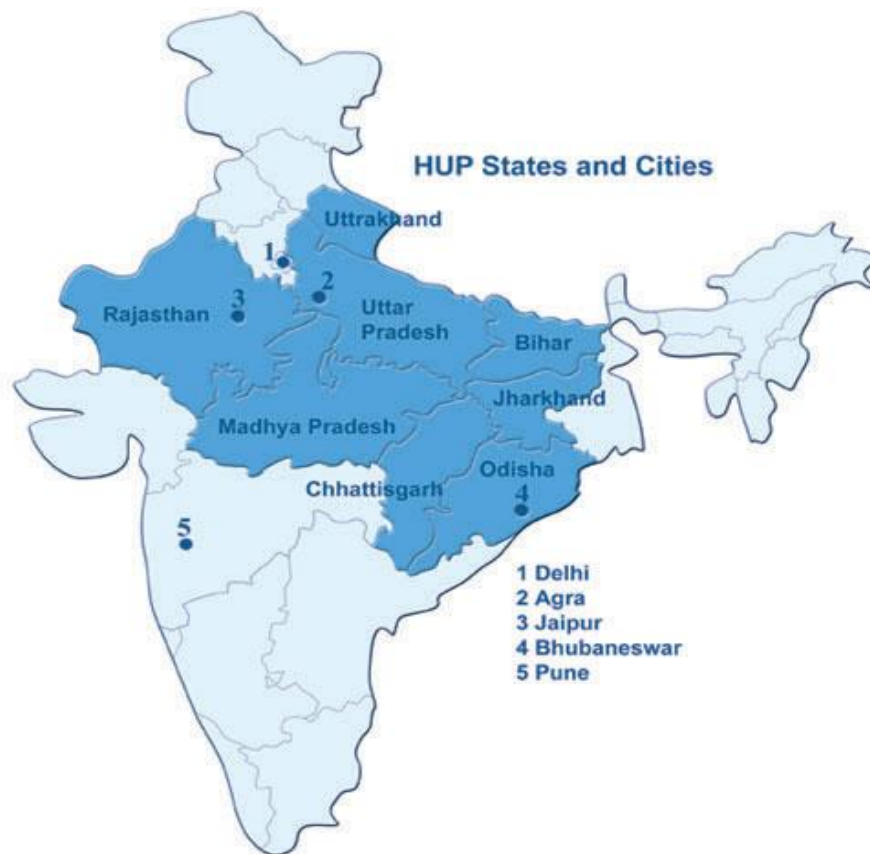
Technical Assistance: Care/India, CEDPA-India, Micro Insurance Academy, International Institute for Population Sciences (IIPS) and Borukha Charitable Trust.

Population and area

The urban population of all eight states and three programme cities.

States: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh, and Uttarakhand

Cities: Bhubaneswar, Pune and Jaipur



Project period

Four years: October 1, 2009 to September 30, 2013

Vision

A responsive, functional, and sustainable health system that provides need based, affordable and quality health care, improved water, sanitation and hygiene for urban poor in eight states.

Goal

To improve the health status of the urban poor by adopting effective, efficient and sustainable strategic intervention approaches, adopting the principle of convergence of various development programmes.

Objectives

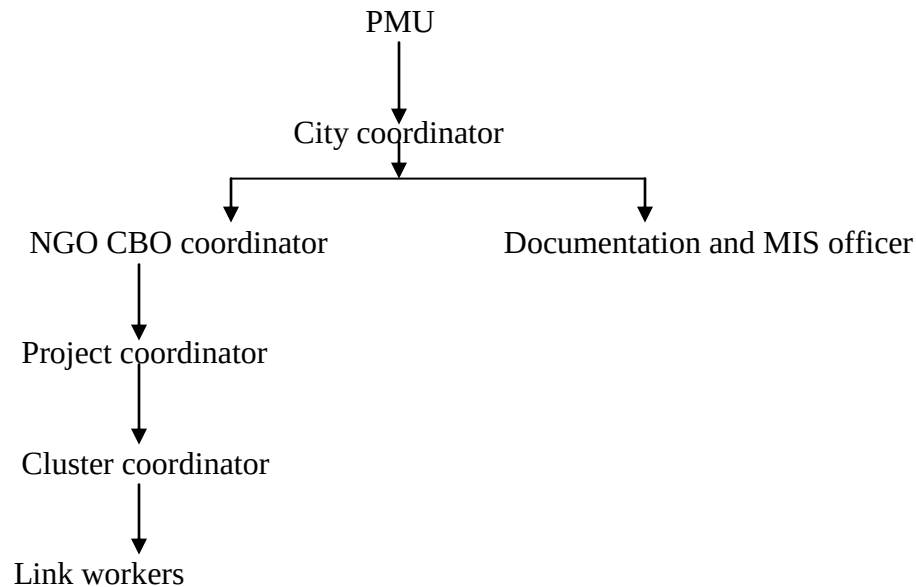
- Provide quality technical assistance to the GOI, states and the cities for effective implementation of the proposed National Urban Health Mission (NUHM).
- Expand partnerships in urban health including engaging the commercial sector in PPP activities.
- Promote the convergence of different GOI urban health and development efforts.
- Strengthen urban planning initiatives by the states through evidence- based city-level demonstration and learning efforts.

Strategies of HUP

- Need-based technical assistance for operationalization of the Urban Health Program within the Public Health System at all levels.
- Convergence at all levels for improved health (MNCH), nutrition, water, sanitation and hygiene through institutionalization.
- Capacity building for high quality accessible and sustainable health, nutritional and water and sanitation services.
- Leveraging resources.
- Gender Equity and Male Engagement.
- Empowering community for improved negotiation and ownership.
- Fostering strategic alliances and partnerships at all levels.
- Demonstration, documentation, systematic replication of successful urban health intervention models

City Demonstration-Implementation Structure

City level:



Program interventions in Jaipur:

Coverage: The HUP city demonstration program covers 6 wards and 46 slums, thereby having presence in about 17% of the total city slums. The total population being covered is around 1.34 lakhs.

Partner: The Jaipur city demonstration program in Jaipur is being implemented by HUP consortium partner – BCT (Bhoruka Charitable Trust).

Major activities:

- Vulnerability assessment for selection of intervention slums.
- Household listing and mapping of slums.
- Household Survey and Mother and Child Tracking Survey.
- Empowering community by constitution of 38 Mahila Arogya Samitis in intervention slums for improved negotiation for quality health care and other services.
- Community mobilization for creating effective linkages between the public health system and the end users.
- Liaising with the private health facilities and other partners (like Jaipur Municipal Corporation) to provide quality health care and sanitation services in the intervention slums.
- Supporting government health programmes (Immunizations programmes, Anganwadi Centres, Health camps etc).

- Skype call sessions amongst women groups of different demonstration cities for promoting cross learning and sharing of programme experiences.
- Conducting awareness and interpersonal counseling sessions with the beneficiaries (pregnant and lactating women, currently married women of reproductive age, care givers of children between 0-5 years of age) for promoting positive behaviour change.
- Demand generation among the community through IEC/BCC activities like Nukkad Nataks, puppet shows and wall paintings.

Data collection:

Data for observation learning was collected on secondary basis from internet and material provided by organization during summer training.

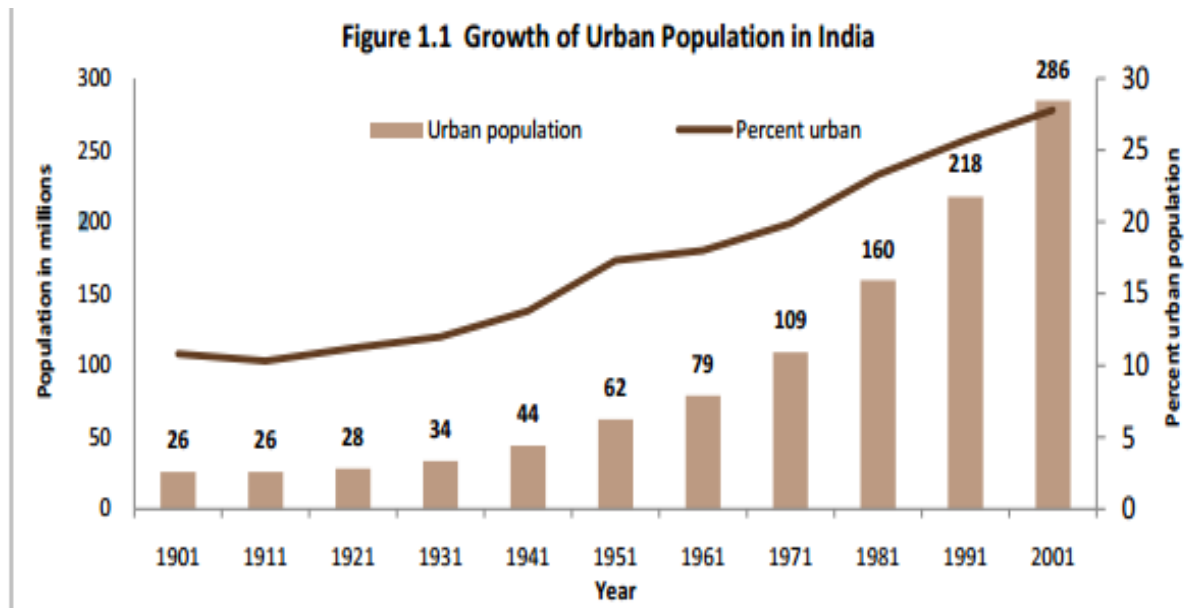
Conclusive Learnings:

Organisation have proper planning and time to time intervention through trainings for effective community mobilization through Link workers and MAS. Link workers have Mother child tracking system (MCTS) register in which all the details of pregnant lady and newborn is recorded. MCTS register record ANC, PNC, immunization of mother and immunization of newborn and with the help of this register, link workers counsel mothers and their families. Effective communication skills and Information, Education and Communication (IEC) material used by link workers to motivate mother for immunization, safe drinking water and to avoid open defecation. Despite their continuous efforts, problems are faced by link workers during their home-visit in slums. The research proposal, questionnaire and data analysis with the help of Statistical Package for the Social Sciences (SPSS) was done to complete the specific assignment by organization.

Special Project:

Introduction:

Globalization of urbanization is seen as one of the most important social changes of the 20th Century and like other developing countries, India has been witnessing rapid urbanization in recent decades. According to census 2011, of the 377 million urban dwellers, over 100 million are estimated to live in slums. This urbanisation brings with it influx of migrants, rapid growth of population, expansion of city boundaries and a concomitant rise in slum populations and urban poverty.



Rajasthan known as “the land of kings” have 68,621,012 population with share of 24.89 percent (17,080,776) of urban population. 22.4 percent (38,26,160) of urban population have to reside in slum areas in Rajasthan. As study is being conducted in state capital, Jaipur, popularly known as “Pink City”, is India's 7th fastest growing city and the 24th fastest growing urban centre in the world (City Mayor Statistics, 2010). Jaipur city has 3,073,350 populations with 17 percent share of total urban population of Rajasthan. Jaipur city has 32.2 percent decadal growth in population. 6,88,430 (22.4 percent) urban populations have to reside in slum areas in Jaipur city in 2011.

Urban Poverty and slums is one of the most critical problems in urban development today. In Jaipur too, they are a serious issue. 10 percent of the population is below the poverty line in Jaipur.

Rationale:

With the increasing urbanization and growth of slums and low income population in the cities, the provision of assured and credible primary health services of acceptable quality has emerged as a priority thrust area for both the central and the State Governments. The need has arisen due to the fact that the focus till now has been on development of a rural health system having three tier health delivery structures. While on the other hand, no specific efforts have been made to create a well-organized health service delivery structure in urban areas especially for poor people living in slums. Recognizing the seriousness of the problem there is a need to prioritize the most vulnerable urban poor within cities.

Objectives of the study:

- To know the disease profile in children under 5 years of age in urban slums of Jaipur
- To estimate the out-of-pocket expenditure on healthcare needs by urban slum population.
- To portray health seeking behaviour of urban poor.

Study site and population:

The present community based study was conducted in children below five years of age in various slums of Jaipur, Rajasthan. The survey was done in seven slums of Jaipur – Jhalana talai, Jhalana mahal kunda, Teela no. 3, Teela no. 4, Tata Nagar, Shaheed indrajyoti nagar and Bajrang nagar. All the slums of Jaipur are notified and is along Delhi-Agra highway and along nalagarh ranges.

Study subjects:

Study subjects consisted of mother of children below five years of age. A list of household was prepared having the study subjects and 225 household were included in the study.

Study design:

A descriptive cross sectional study was done and data was collected by quantitative techniques.

Sampling plan:

Non-probabilistic purposive sampling and then multistage stratified random sampling was done.

Study tools:

- For quantitative data collection, study instrument used was structured pre-tested questionnaire which included information about work, education, housing, water supply and sanitation. Self reported conditions in the , capturing health seeking behavior , expenditure levels and financing mechanisms for each episode and awareness about health insurance were also recorded. Health episodes were divided into two classes:
 - 1) Outpatient: Defined as any episode of illness which did not require hospitalisation for more than 24 hours. Recall period of 12 months.
 - 2) Inpatient: Defined as any episode of illness which did require hospitalisation for more than 24 hours. All visits to healthcare providers as a result of this illness are captured, not just the hospitalisation itself. Recall period of 12 months.

Methodology:

A house-to-house survey was done. By purposive stratified random sampling 225 households having children below five years of age were included in the study. Total 369 children were covered in the study. The information obtained from child's mother was filled in the pre-tested schedule. Every child was subjected to anthropometric measurement i.e. weight.

Weight:

Weight of children aged less than 2 years was measured using children weighing machine while for children more than 2 years, adult weighing machine was used. The machine was regularly checked. Method employed for weighing was near accuracy of 100grams.

Period of Data Collection:

Data was collected from 23rd April to 11th May.

Statistical Analysis:

Analysis is done in spss 16.0.

Ethical consideration:

Informed consent in the respondent's own language was taken before eliciting information from each respondent.

Findings:

Demographic profile of respondents:

Of the 225 respondents, 66.2 percent are following Hindu religion and 33.8 percent are others which include Muslim and Sikhism. Majority of respondents belonged to SC and OBC i.e 46.2 percent, 41.3 percent respectively. Fifty two percent have not received any formal education, 46(20.4percent) have received education till primary level, 35(15.6percent) have learned till middle level and 27(12percent) have got education till senior secondary level. All the 225, respondents were females. The current mean age of respondent is 25.99. The mean age of respondent at the marriage is 19.81. The mean age of respondent at first child birth is 19.81. The study included 369 children under 5 years of age of both genders. The mean number of living children is 2.43.

Major Occupation:

Primary occupation in household constitutes daily manual labor as 45.78percent, handicraft worker 15.56percent, low category which includes sweeper, vendors etc 28percent and others include 10.67percent and their chosen work includes clerical, constables, accountant etc. In secondary occupation of household again, 18.22 percent are employed as daily manual labor, 12.89percent as handicraft worker, 7.11percent are employed as low category includes sweepers, vendors etc and 2.67percent are others by profession which include clerical, constable, accountant etc.

Income:

Household income in 49.3percent household reported to earns less than 10000 per month, 23.6percent procure between 10001-15000, 14.7percent earns between 15001-20000, 11.1 percent receive 20000+ and average monthly income of 225 household is 12636.26.

Expenditure:

Monthly expenditure of large number of households i.e 56percent occur between 5001-10000, 26.7percent pay down 1000-5000 for their monthly expenses, 16.4percent spends 10000+ per month. Average monthly expenditure of the household is 7970.18. In slums, sometime situation is that income is less than their expenses and to meet that exceeded amount,

majority of them, 33.3percent take loan from relatives/friends, 31.6percent use their own savings and 16percent take loan on interest to balance their economy.

Household characteristics of the Respondent:

Out of 225 households 47.6percent have only one room for their living and 21.8percent have two rooms for their family and 30.7percent have more than three rooms. In surveyed households, 71.1percent told that four members live per room and 28.9percent informed that more than four members live per room. Overcrowding was reported in 27.6percent households. Families that don't have any separate room for kitchen are 32.9percent. In all the slums, dampness was there in 97.8percent household.

Hygiene conditions:

For preservation of food, 2.7percent store food in open container on the ground, 4.9percent keep their food in open container above the ground, 15.6percent preserve food in close container on the ground and 76.9percent keep their close container above the ground. Out of 225, 92.4percent have open drainage and 7.6percent have close drainage. For safe disposal of garbage, only 7.1percent dumps in nagar nigam garbage dumpster and 23.1percent households have sweeper to take garbage from home. In non-safe disposal, 53.8percent throws it in fields/open space, 15.1percent dumps in Nalla, 0.9 percent put down in pits. Insects and rodents was confirmed by as many as 76.4percent households.

Type of fuel:

LPG is the main fuel used by 60.4percent household for cooking, 41.7percent families still utilize wood logs in their kitchen, 4.0percent uses kerosene and only 0.9percent uses dung cakes as fuel for cooking.

Water Supply and hygiene:

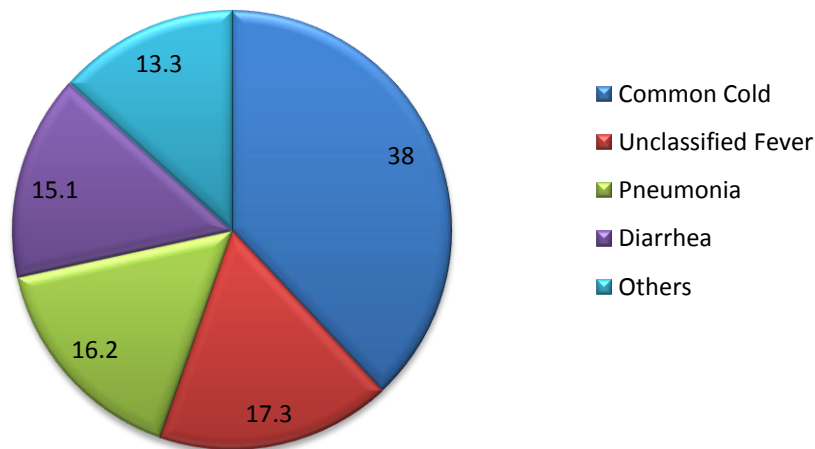
In all the ten slums visited, 47.5 percent families have their own tap, 26.7 percent fulfill their demand of water from public tap which provides water supply in morning hours only, 15.1 percent uses water from tube well, 1.3percent are dependent on tanker and 9.4 percent avail others sources include boring well, shared tap etc. Similarly for drinking water, 48.4 percent uses government connection i.e their own tap for drinking water, public tap usage accounts 26.2 percent, tanker's 6.7 percent, tube well is used by 15.1 percent and 3.6 percent uses others include boring well, shared tap etc. Of all households, 42.7 percent do nothing to make

drinking water safe for them and even for their children. Sieve is preferential method used by as many as 27.1 percent families to make water safe generally for them and their children. Water for drinking is filtered using cloth generally by 26.2 percent families and 25.8 percent household uses this method for their children. Filters which even include aqua guard are used by only 3.6 percent households for safe drinking water and generally 0.4 uses boiling, the most uncommon method which scores 0.4percent generally and 0.9percent for children. Water is stored in covered utensils on the ground by 16percent households, 80.4percent preserve water in covered utensils above the ground, 7.4 percent have their water reservoir in uncovered utensils on the ground. Container of water was cleaned everyday by 95.1 percent and at every alternative days\ by 4.9 percent household. Even some of these households reserve water in tanks and large container which are placed on the ground, covered and is cleaned fortnight or occasionally. Water are drawn from these container mostly by dandi wala lota and this practice is followed by 50.7 percent families, 44.4 percent household take water from containers by their hands and with the help of glass and simple lota and 4.9 percent are others which include bottle and camper.

Prevalence of morbidity:

Total household who faced child sickness in the past 365 days were 86.2percent. Out of total number of children in household, one become sick are 77.6percent and two who become sick are 22.4percent. In a household one episode per children was reported in 52percent households, 34.2percent are two episodes per children in a household and average episodes in household are 1.4percent. Out of total number of household, 38.01percent children suffered with common cold and one episodes of cold was reported in 38.83 percent and more than one episode is confirmed in 61.17percent. Unclassified fever was reported in 17.34percent children, 48.94percent was suffered with one episodes of fever and 51.06percent was suffered with more than two episodes. Diarrhea was accounted in 15.13percent in households, 39.02percent reported one episode of morbidity and 60.98percent suffered from more than two episodes. Others include measles jaundice, dysentery, skin diseases, malaria, anemia etc and period prevalence were 13.28percent among surveyed households, 44.44percent suffered one episode and 55.56percent experienced more than one episode.

Fig2 :Disease profile of children under 5 yrs in Jaipur slums



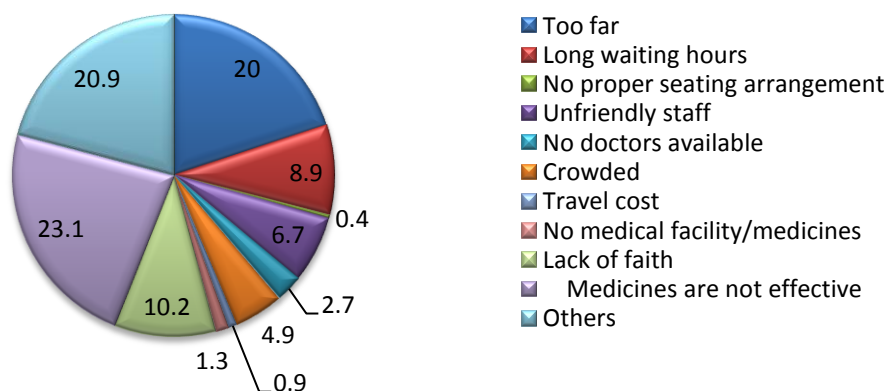
The religion of the household and child morbidity is significantly associated. The association for on is observed very high for cold and diarrhea (χ^2 value 11.738, $p \leq 0.010$; and χ^2 value 3.463, $p \leq 0.050$ respectively). The cast of respondent and common cold exhibited significant association (χ^2 value 10.647, $p \leq 0.050$). The age of the respondent at first child is associated with unclassified fever (χ^2 value 6.391, $p \leq 0.0506$). Households which have no separate room for kitchen and diarrhea have highly significant coalition (χ^2 value 7.681, $p \leq 0.010$). Open drainage system of the household and common cold is significantly associated (χ^2 value 4.836, $p \leq 0.050$). Storage of water and child morbidity is highly significant. This association is observed with unclassified fever and others morbidity which include jaundice, dysentery, skin diseases, malaria, anemia etc (χ^2 value 10.002, $p \leq 0.010$; χ^2 value 7.098, $p \leq 0.050$ respectively). The methods used for drawing water from the container and other morbidities like dysentery, jaundice, malaria, anemia etc are highly significant (χ^2 value 14.71, $p \leq 0.010$). Even, the methods used for drawn of water from container and diarrhea is also associated significantly (χ^2 value 6.938, $p \leq 0.050$). The unclean area in household where containers of water are kept and pneumonia is significantly associated (χ^2 value 2.944, $p \leq 0.10$). Common cold and fever is significant with frequency of breastfeeding per day of a child by mother and child morbidity (common cold and fever) are significantly associated. (χ^2 value 4.862, $p \leq 0.050$; χ^2 value 5.066, $p \leq 0.050$ respectively).

Health seeking behavior:

People displayed a marked preference for private sources of treatment. For outpatient, in about 86.4percent of cases a private doctor in clinics or hospitals was approached for treatment and due to their lack of knowledge about qualifications of doctors, many of them

fell in the hands of unregistered private practitioners; these are none other than “quacks”, locally known as the “bangali daaktar”. They attract a lot of patients owing to their locational utility and low charges. Various reasons were quoted by respondents for not accessing the public health services and distance, “too far” or inaccessibility from their locality is the main reason for their preference for private services, 8.9percentconfirmed that long waiting hours in queues and waiting hall is other reason, 6.7percent complained that unfriendly and uncourteous staff is the main apprehension, 4.9percent admit that due to so much crowd in public services, they prefer private hospitals and clinics for their children as they cannot waste wait time for treatment. 2.7percent said that no doctor was available in duty for the treatment of their child. 1.3percent said that no medical facilities or medicines were available.49.8percent gave other reasons which include lack of awareness and medicine are not effective in public services, 0.4percent and 0.9percent said no proper seating arrangement and travel cost are the main trepidation. The status of and the lack of confidence on public institutions is amply demonstrated by the fact that as low as 13.6 per cent of the ailing individuals opted for that mode of treatment. Households who chooses public facility for treatment; 8percent of them cleared that they preferred public over private because private facilities are too expensive, 2.2 percent said no proper treatment was given to their children and 4percent gave other reasons like private gave same treatment as public do, medicines are not effective on their children.

Fig 3 : Reasons for not accessing public health services in Jaipur slums



In outpatient child morbidity, public health services are “too far” and common cold, diarrhea have significant association (χ^2 value 8.870, $p \leq 0.010$; and χ^2 value 2.98, $p \leq 0.050$ respectively). Long waiting hours in public facilities and common cold, diarrhea have significant association (χ^2 value 4.781, $p \leq 0.050$; and χ^2 value 9.408, $p \leq 0.010$ respectively). A significant association was found between uncourteous, unfriendly staff and diarrhea (χ^2 value 3.593, $p \leq 0.050$). Pneumonia and no seating arrangement in public services have significant association (χ^2 value 4.646, $p \leq 0.050$). Crowding in public health care services and pneumonia have significant association (χ^2 value 3.568, $p \leq 0.050$). The travel cost to reach public health services and pneumonia have significant association (χ^2 value 2.98, $p \leq 0.050$). The other reasons which include lack of awareness and medicine are not effective and child morbidity of common cold have highly significant association (χ^2 value 9.597, $p \leq 0.010$). The observation shows significant association between other reasons to seek treatment from public healthcare services and others morbidity like dysentery, jaundice, measles etc (χ^2 value 4.044, $p \leq 0.050$).

For inpatient treatment of their children, 7.1 percent of respondents mainly exercise their choice for private hospitals/nursing home and 1.8 percent opted for public services. Reasons for not accessing public health services are mainly unfriendly and uncourteous staff which accounted for 1.3 percent, 0.9 percent confirmed that its long waiting hours are there apprehension, 0.4 percent said that crowded atmosphere and non availability of doctors in public services force them to seek private services. The high expenditure in private health services is the main reason to seek treatment from public health services and it accounted for 8 percent of all households.

Cost Analysis:

On analyzing the cost part, total outpatient expenditure is more for pneumonia followed by other diseases like anemia, intolerance to gluten etc and then diarrhea on which people are spending more from budget.

Multivariate analysis:

The analysis of household health expenditure has produced certain stylized facts regarding the incidence of economic burden on the urban poor, owing to health care payments. The burden, though universal as far as the urban poor is concerned has got distinct socio-economic variations even within the poor. In other words, there are certain individual, household as well

as behavioral factors that determine whether health spending is catastrophic. Our next objective is therefore to identify these determinants of catastrophic expenditure by applying the binomial logistic technique to the sample of ailing individuals. Our larger objective therefore is to isolate those sections or sub-groups within the urban poor who are slightly more vulnerable to the “medical poverty trap”. In the current analysis we assume a health expenditure of 6 per cent or more of total household expenditure to be catastrophic.

Multiple logistic regression analysis was performed to examine the differential risk of catastrophic OOP expenditure(COPE-T) and outpatient expenditure(COPE-OT) which include both medical and non medical expenditure with covariates includes

- a) Age of the respondent,
- b) Education,
- c) Working status,
- d) Religion,
- e) Cast,
- f) Total members in a household,
- g) BPL card holders,
- h) Ownership of house,
- i) Per capita income,
- j) Sources for outpatient,
- k) Dysentery,
- l) Diarrhea,
- m) Fever,
- n) Cold,
- o) Pneumonia,
- p) Others includes jaundice, measles,
- q) Monthly expenditure of the household,
- r) Monthly income of the household.

The selection of covariates was based on the previously published literature within the Indian context and of all the possible covariates that were explored, the ones which had significant association ($p\text{-value} < 0.10$) with the outcome variables were used in the multivariate analysis. In the regression model, the effect of each category of a multi-categorical variable was assessed by keeping the first category as reference, and all the

variables were introduced simultaneously in the model. 95percent confidence intervals (CI) for odds ratio are also reported.

Results of multiple regression for total health expenditure:

On applying multiple logistic regression, religion of the respondent and proportion of total expenditure on health are significantly associated having indicative odds (odds ratio, OR 0.104; 95percent CI 0.016-0.677). There is a significant association between increase in living members i.e 3-5 members in household and more than 6 members in household and proportion of total expenditure on health having high odds (odds ratio, OR 0.157; CI 0.031-0.793 and OR 0.067; CI 0.009-0.504 respectively). A significant association is observed between household having per capita income more than 30000 and proportion of total expenditure on health (odds ratio, OR 0.036; CI 0.002-0.712). The association between child morbidity and proportion of total expenditure on health is significant. Dysentery, pneumonia and other diseases like anemia, jaundice etc COPE-O have significant association with high odds (odds ratio, OR 0.016; 95percent CI 0.00-0.931; odds ratio, OR 15.405; 95percent CI 3.008-78.885 and odds ratio, OR 13.007; 95percent CI 2.107-80.283 respectively). The monthly expenditure of the household categorized in two i.e 5001-10000;more than 10000 and proportion of total expenditure on health have significant association with suggestive odds (odds ratio, OR 0.333; 95percent CI 0.101-1.095 and odds ratio, OR 0.085; 95percent CI 0.011-0.673 respectively).

Limitation of the study:

The main limitation of the study is the paucity of time for data collection and analysis. In some cases mother is facing problem to recall the exact expenditure on the morbidity episode and thus only estimated expenditure can be calculated. Sometimes, people was troubled in differentiating between the private doctors and jhola chaps doctors.

Conclusion:

Although public health services are there but the need has arisen due to the fact that the focus till now has been on development of a rural health system having three tier health delivery structures in that areas only. While on the other hand, no specific efforts have been made to create a well-organized health service delivery structure in urban areas especially for poor people living in slums. Thus due to constraint in their options and balance their out of pocket expenditure, they prefer to go to jhola chap doctors or nearby private clinics for health care

services. Interestingly, children are the most cared family member in families so even they go beyond their limit to make sure their children have comfortable life. They take loans and then they try to repay it by working hard and thus lack of three tier system in urban areas are responsible to pushing them into more poverty. Recognizing the seriousness of the problem there is a need to prioritize the most vulnerable urban poor within cities.

Annexure 1: Schedule

IDENTIFICATION	
Questions	Responses
Q101 Name of the respondent	
Q102 Age of the respondent (in completed years)	
Q103. Education level of the respondent No Education.....1 Primary Education.....2 Middle Education.....3 Secondary Education...4 Sr. Secondary.....5 Others(specify).....9	
Q104.a) Are you working? Yes.....1 No.....2	
b) If yes, then how many hours/day?	
Q105. Age at marriage	
Q106 Age at first child birth	
Q107 Total live births	
Q108 Number of still birth?	

Q 109.Total no. of children				
Q110	Child profile	1	2	3
a)	Name			
b)	Age (completed in yrs)			
c)	Sex			
d)	Weight(in kgs)			

Codes for occupation: Unemployed ... 1; Rickshaw puller2; Daily manual laborer.....3; Domestic servant ... 4; Agricultural worker..... 5; handicraft/ tailoring/ embroidery..... 6;Factory/powerloom labor...7 ; carpenter...8; Painter9; Construction (mistri) 10; Mechanic ... 11; Electrician/electronic repairers...12 ; Petty business...13, (pan/meat/vegetables/tea)/; Vendor (banana/ice-cream/sweets)...14; Low category –peon, sweeper... 15 ,Med category clerical/computer/ sales/constable 16; High category – govt. or pvt. Professional jobs like- lawyers/doctor/engineers/officer etc... 17 Others(specify).....99

S.No.	Questions	Responses	Skips
Q111 a)	Primary occupation of the family?		
b)	Secondary occupation of the family(if		

	any)?		
Q112	Monthly expenditure of the family?	Rs.....	
Q113	Monthly income of the family?	Rs.....	
Q114	If expenses exceed, what do you do to meet them?	Own savings.....1 From relatives/friends...2 Loan (on interest) and at what rate.....3 Loan (w/o interest)..4 Sold some articles.....5 Insurance6 Others.....9	
Q115	What is your religion?	Hindu.....1 Muslim.....2 Sikh.....3 Others(specify).....9	
Q116	What is your caste?	SC.....1 ST.....2 OBC.....3 General.....4	
Q117	Do you have BPL card?	Yes.....1 No.....2 Don't know.....3 Card not shown.....4	
Q118 a)	Since when are you living in this slum?	(no. of years)	
b)	How many months in a year, you stay in this house?	(no. of months)	
Q119	Is your home self owned or rented?	Own.....1 Rented.....2	

BACKGROUND ABOUT HYGIENE, SANITATION, WATER AND NUTRITION OF THE HOUSEHOLD

S.No	Questions	Responses	Skips
A	HYGIENE		
	Housing and its surroundings		
201	Type of house	Pakka.....1 Kachha.....2 Semi pakka.....3	
202	No. of rooms		
203	How many members living In the household		
204	Overcrowding	Yes.....1 No.....2	
205	Dampness	Yes.....1 No.....2	
B	Kitchen		
206	Is there any separate room for kitchen	Yes.....1 No..... 2	
207	Storage of food	Open Container on the ground.....1 Open container above the ground.....2 Close container on the ground.....3 Close container above the ground.....4	
208	Drainage	Open.....1 Close.....2	
209	Garbage disposal	Pits.....1 Fields/open space.....2 Nagar Nigam Garbage dumpster.....3 Sweeper takes it from home.....4 Nala.....5	

210	Insects and rodents in the house	Yes.....1 No.....2	→ Q 212	
211	What do you use for killing them	Insecticides.....1 Home remedies.....2 Trap.....3 Nothing.....4		
212	What kind of fuel used for cooking	LP.....1 Kerosene.....2 Dung cakes.....3 Coal/Coke/Lignite/ Charcoal....4 Wood logs.....5 Biogas.....6 Electricity.....7 Other(specify).....9		
C	Water supply and storage			
213	What are the sources of water? Public tap.....A Hand pump.....B Stand post.....C Tanker.....D Dug well.....E Tube well.....F Others.....G	<u>For Drinking</u>	<u>Other purposes</u>	
214	What do you usually do to make it safer to drink for children? Chlorine.....11 Boiling.....12 Filter using cloth.....13 Filters.....14 Use alum.....15 Bleaching tablets.....16 Let it stand and settle.....17 Solar disinfection/Sodexo.....18 Nothing19 Others.....99	Generally	For child	
215	Storage of water	Covered utensils on the ground.....1 Covered utensils above the ground.....2 Uncovered utensils on the ground.....3 Uncovered utensils above the ground.....4		

216	How often do you clean the container	Everyday.....1 Alternative days.....2 Weekly.....3	
217	What you use for drawing water from the container	Hands.....1 Dandiwala lota.....2 Others(specify).....9	
218	Is the area clean where the container is kept	Yes.....1 No.....2	
D	Sanitation		
219	What is the arrangement of toilet facility for your household	Individual.....1 Private.....2 Shared.....3 Community.....4 No facility/open defecation...5	
220	Do you wash hands after using toilet	Yes.....1 No.....2	
221	If yes then what do you use	Soap.....1 Sand2 Ash3 Only water... 4	
222	Do you wash your hands before eating food	Yes.....1 No.....2	
E	Feeding And Nutrition Practices		Child 1 Child 2 Child 3
223	What was first feed given to the child after birth?	Breast milk.....1 Plain water.....2 Gripe water.....3 Infant formula.....4 Janam ghutti.....5 Honey.....6 Sugar or glucose water.....7 Other (specify)..... .9	
224	After how many hours of birth breastfeeding was initiated?	Hours,,,,,,,,,,,,,,,,,,,,,	
225	How long was the child breast fed?	>6 months.....1 4-6 months.....2 7-12 months.....3 1-2 yrs.....4	
226	How many times breast milk is given per day		

227	When was the complimentary feeding /weaning started (give age in months)				
228	What do you give your child for complimentary feeding? (multiple responses)	Mashed potatoes.....A Green leafy vegetables....B Other vegetables.....C Fruits.....D Dairy Products.....E Cereals.....F Meat/Fish.....G Eggs.....H Baby Food.....I Khichdi/porridgeJ Animal milk.....K Others(specify).....L			
229	What kind of food your child (1-5 years) eat? (Multiple responses)	Green leafy vegetables.....A Other vegetables.....B Pulses.....C Non veg.....D Eggs.....E Others(specify).....F			
230	How often does your child consume fruits?	Daily.....1 Weekly.....2 2-3 days in a week.....3 Occasionally.....4 Never.....5			
231 a)	How often does your child consume milk and milk products?	Daily.....1 Weekly.....2 2-3 days in a week.....3 Occasionally.....4 Never.....5			
b)	If you have one glass of milk, to whom you will give it?	Boy.....1 Girl.....2 Half glass to each.....3			

Morbidity Profile and Health seeking behavior

Disease: 11-Diarrhea, 12-dysentery, 13-pneumonia/ARIs 14- asthma , 15-common cold and cough,,16-dengue,,17 –polio,18-Measles /chicken pox, 19- eye disorders, 20.ENT disorders,21-Skin disorders 22- jaundice, 23-unclassified fever, 24-anemia, 25-malnutrition ,26-accident/injuries, 27-insect bites, 28-animal bites, 29- congenital,30- Night ,blindness ,99-others(specify)

Source of Treatment: 0- no action,1- PHC, Govt. dispensary/clinic, 2-Govt Hospital, 3- private doctor/dispensaries/clinic, 4- Private hospital/nursing home , 5- unqualified doctor, 9- others(specify)

301	Did any child in the family fall sick in the past 365 days	Yes.....1 No.....2 →				Skip to Q309
	Sr.No	1	2	3	4	5
302	Name					
303	Disease status					
304	What were the major symptoms of the disease? (Multiple response) Cough.....A Fever.....B Skin rashes.....C Loose stools.....D Eye disorders.....E Respiratory infections.....F Fever with hemorrhagic disorders...G Urinary infections.....H Fever with chills and rigors....I Others(please specify)....J					
305	What was the duration of illness? <7 days.....1 7-14 days.....2 >2 weeks.....3 >1 month.....4					
306 a)	Did you seek any treatment ?	Yes.....1 No.....2			→ Skip to Q 307	
b)	if yes, then what type of treatment?	Outpatient..... Inpatient			→ Skip to Q 308 → Skip to Q 309	
307 A	Home-Remedy					
1	Disease status					
2	No. of days of illness					
3	Expenditure on treatment					
I	Food					
ii	Others					
Iii	Total expenditure					
4	Loss of wages/income					
	Attendant					
5	Why you prefer home remedy?					

	1) Lack of money 2) Lack of time 3) Health service too far 4) Didn't feel like going 5) No one to accompany 6) elderly and other household members restricted 7) no access of transportation 8) Lack of knowledge 9) Others(specify)					
308B	Outpatient					
1	Disease status					
2	No of days of Illness					
3	Source of treatment					
4a)	Why don't members of your household go to the government health facility when they are sick? (multiple responses) Too farA Long waiting hours.....B No proper seating arrangement...C Unfriendly and uncourteous staff...D No doctors availableE Unhygienic..... .F No female staff.....G Crowded.....H Travel cost.....I No medicines/other facilities....J Others(specify)..... ...K					
4b)	Why don't members go to private health facility when they are sick? (multiple responses) Too expensive.....A Too far.....B No proper treatment.....C					

	Unfriendly and uncourteous staff... D No doctors.....E No female staff.....F Others(specify)..... G					
5	Expenditure on treatment					
I	Doctors fees					
Ii	Nurse fees					
Iii	Fees paid to other staff					
Iv	Medicines					
V	Diagnostic charges					
Vi	X-rays, Lab tests					
Vii	Transportation					
Viii	Food					
i x	Others (specify)					
X	Total					
6	loss of wages/income of attendant					
7	From where did you manage the cost of treatment? Own savings.....1 From relatives/friends...2 Loan (on interest) and at what rate..3 Loan (w/o interest)..4 Sold some articles.....5 Health insurance6 Others(specify).....9					
8	If loan...how much and when will it be repaid?					
9	Amount reimbursement by any health facility or under any scheme					
309C	Inpatient(Last 365 days)					
1	Disease status					
2	No of days of illness					
3	No. of days hospitalized					
4	Source of treatment					
4a)	Why don't members of your household generally go to the government health facility when they are sick? (multiple responses) Too farA Long waiting hours.....B					

	No proper seating arrangement...C Unfriendly and uncourteous staff....D No doctors availableE Unhygienic.....F No female staff.....G Crowded.....H Others(specify).....I					
4b)	Why don't members go to private health facility when they are sick? (multiple responses) Too expensive.....A Too far.....B No proper treatment.....C Unfriendly and uncourteous staff... D No doctors.....E No female staff.....F Others(specify).....G					
5	Expenditure on treatment					
I	Doctors fees					
Ii	Nurse fees					
Iii	Fees paid to other staff					
Iv	Medicines					
V	Diagnostic charges					
Vi	Transportation					
Vii	X-rays, Lab tests					
Viii	Surgery					
Ix	Accommodation					
X	Food					
Xi	Others(specify)					
Xii	Total					
6	No. of days of work lost and loss of wages/income					
7	From where did you manage the					

	cost of treatment? Own savings.....1 From relatives/friends...2 Loan (on interest) and at what rate..3 Loan (w/o interest)..4 Sold some articles.....5 Health insurance6 Others(specify).....9					
8	Amount of reimbursement by any health facility or others					
310	Is any usual member of this household covered by a health scheme or insurance?	Yes.....1 No.....2				

Annexure 2: Tables

Table 1- Background Characteristics of household respondents age 15-49 years in Jaipur slums, Rajasthan	
Religion	Total (%)
Hindu	66.2
Others	33.8
Cast	
SC	46.2
ST	2.7
OBC	41.3
General	9.8
Education	
No education	52.0
Primary education	20.4
Middle education	15.6
Secondary and sr secondary education	12.0
Current age of respondent	
18-24	47.6
25-29	34.2
30-35	18.2
Mean age of respondent	
	25.4
Age at the time of marriage	
<15	42.7
15-19	64.0
20-24	18.7
25+	2.7
Mean age at marriage	
	17.1
Age at first child birth	
15-19	27.1
20-24	66.2
25-29	6.7
Mean age at first child	
	19.8
Number of living children	
1	22.7
2	38.2
3+	39.1
Mean number of living children	
	2.4
N	
	225

ECONOMIC CHARACTERISTICS

Table-2: Economic characteristics of household of respondents age 15-49 years in Jaipur slums, Rajasthan		
		Total(%)
Ownership of the household		
Own		88.4
Rented		11.6
Type of house		
Pakka		47.1
Kaccha		1.8
Semi pakka		51.1
Households with BPL card		8.4
Monthly Income of the household		
<10000		49.3
10001-15000		23.6
15001-20000		14.7
20000+		11.1
Average monthly income of the household		12636.26
Monthly Expenditure of the household		
1000-5000		26.7
5001-10000		56.0
10000+		16.4
Average monthly expenditure of the household		7970.18
Expenses exceed what do you do to meet them*		
Own savings		31.6
From relatives/friends		33.3
Loan (on interest)		16.0
Others		19.1
N		225
Table-3: Main occupation of the household of respondents age 15-49 years in Jaipur slums, Rajasthan		
Occupation	Primary Occupation	Secondary occupation
	Total (%)	Total (%)
Daily manual labor	45.78	18.22
Handicraft worker	15.56	12.89
Low category like sweeper, vendors etc	28.00	7.11
Others*	10.67	2.67
N	225	92
*Others include clerical, constable, caterers, accountant etc		

WASH PROFILE OF HOUSEHOLD INTERVIEWED

Table-4: Household characteristics of respondents age 15-49 years in Jaipur slums, Rajasthan

Total (%)	
No of rooms	
1	47.6
2	21.8
3+	30.7
No of members per room	
4 or less	71.1
4+	28.9
Overcrowding	27.6
Any separate room for kitchen	32.9
Dampness	97.8

Table-5: Sanitation and hygiene condition of household respondents age 15-49 years in Jaipur slums, Rajasthan

Total (%)	
Storage of food	
Open container on the ground	2.7
Open container above the ground	4.9
Close container on the ground	15.6
Close container above the ground	76.9
Drainage	
Open	92.4
Close	7.6
Garbage Disposal	
Pits	0.9
Fields/open space	53.8
Nagar Nigam Garbage dumpster	7.1
Sweeper takes it from home	23.1
Nalla	15.1
Insects and rodents in the house	76.4
Type of fuel used for cooking	
LPG	60.4
Kerosene	4.0
Dung cakes	0.9
Wood logs	41.7

Table-6: Water Supply

Source of water	For general purpose (%)	For drinking purpose (%)
Public Tap	26.7	26.2
Tanker	1.3	6.7
Tube well	15.1	15.1
Own tap	47.5	48.4
Others	9.4	3.6
N	225	

Table-7: Methods used to make water safe to drink

	Generally (%)	For children (%)
Boiling	0.4	0.9
Filter using cloth	26.2	25.8
Filters	3.6	3.6
Nothing	42.7	42.7
Sieve	27.1	27.1
N	225	

Table-8: Storage of water and Sanitation

Storage of water	Total (%)
Covered utensils on the ground	16.0
Covered utensils above the ground	80.4
Uncovered utensils above the ground	7.4
Clean the container	
Everyday	95.1
Alternative days	4.9
Water Drawn from the container	
Hands	44.4
Dandiwala lota	50.7
Others	4.9
* Others refer to bottle and camper	
The area clean where the container is kept	68.9
Arrangement of toilet facility for your household	
Individual	58.2
Shared	6.2
Open defecation	35.6
N	225

Section D- Child Nutrition

Table 9 : Nutrition and Feeding habits of children under 5 years in Jaipur slums, Rajasthan	
	%
First feed to child after birth	
Breast milk	52.3
Infant formula	1.6
Janam ghutti	4.1
Honey/sugar water	8.4
Tea	10.5
Jaggery water	6.7
Packet milk	8.1
Others	5.9
N	353
Initiation of breastfeed of child	
Within one hr	39.9
Same day	46.4
Next day	13.7
N	358
Duration of breastfeeding	
>or = 6 months	7.7
7-12 months	8.6
12+months	83.8
N	183
Frequency of breastfeeding per day¹	
1-6	50.8
7-10	25.1
10+	24.0
N	363
¹ Among those who are currently breast feeding	
Age when complimentary feeding started	
0-6 months	55.4
7-12 months	42.1
12+ months	2.5
N	323
Item provide as complimentary food	
Potatoes	20.0
Green vegetables	88.0
Other vegetables	88.4
Cereals	12.0
Eggs/meat	38.7
Fruits	28.0
Baby food	8.4
Khichdi/Porridge	44.0
N	225

Type of food taken by child (1-5 years)	
Green leafy vegetables	42.7
Other vegetables	28.9
Pulses	72.0
Non-Vegetarian	33.8
N	225
Frequency of consuming fruits	
Daily	35.6
2-3 days in a week	15.4
Occasionally	42.6
Never	5.5
N	202
Frequency of consuming milk and milk products	
Daily	66.2
Occasionally	7.8
Never	26.0
N	192

Table-10: Malnutrition status among children under 5 years in Jaipur slums, Rajasthan

Age	Average weight (boys)	Average Weight (girls)	N boys	N girls
0-3 months	5.4	5.8	12	9
4-6 months	7.0	6.6	10	6
7-9 months	7.2	6.9	18	13
10-12 months	8.3	7.9	63	44
13-24 months	9.6	9.9	29	31
25-60months	12.4	12.5	63	57
Total (N)			195	160

MORBIDITY AND TREATMENT SEEKING PATTERN

Table 11: Child Morbidity Profile and health seeking behavior of children under 5 years in slums of Jaipur, Rajasthan.

Household level morbidity pattern	
	%
Household faced child sickness	86.2
N	225
Number of children in household become sick	
1	77.6
2+	22.4
Morbidity episodes in household	
1	52.0
2+	34.2
Average episodes in household	1.4
N	194

Disease Status	% children suffered with disease	One Episodes	More than one episodes	Total no of household
Common Cold	38.0	38.8	61.2	103
Unclassified Fever	17.3	48.9	51.1	47
Pneumonia	16.2	63.6	36.4	44
Diarrhea	15.1	39.0	60.9	41
Others ¹	13.3	44.4	55.6	36
Total (N)	100			271
Others include measles, jaundice, dysentery, skin diseases, malaria ,anemia and intolerance to gluten				

Table 12: Health seeking behavior for Outpatient and Inpatient treatment for sick child under 5years in Jaipur slums, Rajasthan

For Outpatient:-	
Source of treatment ¹	%
Gov. Hospitals/ dispensaries	13.6
Private hospital/nursing home	86.4
N	176
Reason for not accessing public health services²	
Too far	20.0
Long waiting hours	8.9
No proper seating arrangement	0.4
Unfriendly staff	6.7
No doctors available	2.7
Crowded	4.9
Travel cost	0.9
No medical facility/medicines	1.3
Lack of faith	10.2
Medicines are not effective	23.1

Others	20.9
N	225
Reason for not accessing private health services³	
Too expensive	8.0
No proper treatment	2.2
Others	4.0
Total	32
¹ Who treated as outpatients.	
² Those who accessed private health facility.	
³ Those who accessed public health facility.	
For inpatient treatment	
Source of treatment ¹	%
Gov. Hospitals/ dispensaries	1.8
Private hospital/nursing home	7.1
Reason for not accessing public health services²	
Long waiting hours	0.9
Unfriendly and uncourteous staff	1.3
No doctors available	0.4
Crowded	0.4
N	21
Reason for not accessing private health services³	
Too expensive	8.0
N	225
¹ Who treated as inpatients	
² Those who accessed private health facility	
³ Those who accessed public health facility	

Analysis

BACKGROUND CHARACTERISTICS:

Table 13:

Religion of respondent					
	Common Cold	Fever	Pneumonia	Diarrhea	Others
Hindu	44.3	20.1	16.8	12.8	10.1
Others	21.1	11.8	19.7	22.4	15.8
N	82	39	40	36	27
□ ²	11.738***	2.415	0.301	3.463**	1.561
Caste Of Respondent					
SC	47.1	20.2	13.5	12.5	11.5
ST	33.3	16.7	0	0	0
OBC	24.7	12.9	21.5	21.5	15.1
General	36.4	22.7	27.3	13.6	4.5
N	82	39	40	36	27
□ ²	10.647**	2.316	4.864	4.280	2.818
Educational qualification of respondent					
No education		33.3	19.7	14.5	14.5
Primary education		39.1	15.2	26.1	15.2
Middle education		42.9	8.6	20.0	22.9

Senior and sr. secondary education	37.0	22.2	14.8	14.8	7.4
N	82	39	40	36	27
χ^2	1.258	2.911	3.297	1.462	1.694

DEMOGRAPHIC CHARACTERISTICS:**Table 14:**

	Common Cold	Fever	Pneumonia	Diarrhea	Others
Type of House					
Pakka	36.8	20.8	14.2	16.0	17
Kaccha	0	50	25	25.0	0.0
Semi -pakka	37.4	13	20.9	15.7	7.8
N	82	39	40	36	27
χ^2	2.344	5.322	1.849	0.252	4.933*
Current age of respondent					
18-24	40.2	15.9	22.4	16.8	10.3
25-29	28.6	20.8	15.6	16.9	14.3
30-35	41.5	14.6	9.8	12.2	12.2
N	82	39	40	36	18.5
χ^2	3.153	1.003	3.643	0.540	0.682
Age at the time of marriage					
<15	36.4	18.2	24.2	27.3	12.1
15-19	36.1	14.6	18.1	14.6	12.5
20-24	33.3	28.6	11.9	14.3	9.5
25+	66.7	0	16.7	0	16.7
N	82	39	40	36	27
χ^2	2.549	5.737	1.947	4.570	0.402
Age at first child birth					
14-18	39.3	11.5	19.7	13.1	14.8
19-24	34.2	21.5	16.1	18.1	10.9
25-29	46.7	0	26.7	6.7	20
N	82	39	40	36	27
χ^2	1.214	6.391**	1.245	1.849	1.874
No of living children					
1	39.0	17.6	19.1	16.9	11.0
2	36.1	16.7	15.3	12.5	12.5
3+	17.6	17.6	17.6	23.5	17.6
N	82	39	40	36	27
χ^2	2.971	0.033	0.475	1.457	0.652
Overcrowding in a household					
Overcrowding	30.6	14.5	19.4	16.1	11.3
Non overcrowding	38.7	18.4	17.2	16.0	12.3
N	82	39	40	36	27
χ^2	1.243	0.474	0.146	0.011	0.041
No separate room for kitchen					
No separate room for kitchen	37.1	17.9	16.6	11.3	13.2
N	82	39	40	36	27
χ^2	0.082	0.096	0.469	7.681***	0.674
Storage of food					

Open container above the ground	23.5	17.6	5.9	17.6	11.8
Close container on the ground	34.3	22.9	17.1	11.4	14.3
Close container above the ground	38.2	16.2	19.1	16.8	11.6
N	82	39	40	36	27
χ^2	1.512	0.906	1.855	0.653	0.206

Fuel used for cooking					
LPG	36.0	16.9	16.9	16.2	11.8
Kerosene	33.3	11.1	33.3	33.3	11.1
Dung cakes	0	50	0	0	0
Wood logs	38.5	17.9	17.9	14.1	12.8
N	82	39	40	36	27
χ^2	1.332	1.770	1.994	2.605	0.33

Water supply(means of safe drinking water)					
Filters		37.9	19	17.2	13.8
Use alum		0	100	0	0
Sieve		38.3	10	25	11.7
Others		50.0	30	30.0	20.0
N		82	39	40	36
χ^2		1.187	1.181	1.745	0.697

Drainage					
Open	38.5	17.3	16.8	16.8	12.0
Closed	11.8	17.6	29.4	5.9	11.8
N	82	39	40	36	27
χ^2	4.836**	0.001	1.703	1.401	0.001

Garbage disposal					
Pits	0	50	0	0	0
Fields/open space	38.0	14.9	18.2	19	12.4
Nagar nigam garbage dumpster	18.8	25.0	12.5	18.8	25.0
Sweeper takes it from home	32.7	17.3	23.1	11.5	11.5
Nalla	47.1	20.6	11.8	11.8	5.9
N	82	39	40	36	27
χ^2	5.409	2.907	2.591	2.510	4.067

Insects and rodents In the house					
Presence of	36.6	17.4		16.9	11.0

Insects and rodents In the house					
N	82	39	40	36	27
χ^2	0.011	0.006	0.991	0.402	0.629
Storage of water and sanitation					
Cover utensils on the ground	47.2	8.3	16.7	19.4	25.0
Covered utensils above the ground	34.8	17.7	18.8	15.5	9.4
Uncovered utensils on the ground	0	100	0	0	0
Uncovered utensils above the ground	28.6	42.9	0	14.3	14.3
N	82	39	40	36	27
χ^2	2.776	10.002***	1.886	0.561	7.098*

	Common cold	Fever	Pneumonia	Diarrhea	Others
Clean the container					
Everyday	36.4	17.8	17.3	15.9	12.1
Alternate day	36.4	9.1	27.3	18.2	9.1
N	82	39	40	36	27
χ^2	0.000	.548	0.713	0.041	0.093
Water drawn from the container					
Hands	44	20.0	16	11.0	14
Dandiwalla lota	30.7	15.8	19.3	21.9	7
Others	27.3	9.1	18.2	0	45.5
N	82	39	40	36	27
χ^2	4.487	1.207	0.398	6.938**	14.717***
Area is not clean where container is kept					
N	82	39	40	36	27
χ^2	0.023	0.504	2.944*	0.006	0.031
Arrangement of toilet facility for household					
Individual	34.9	14.7	16.3	18.6	10.9
Private	0	0	0	0	50
Shared	42.9	21.4	14.3	7.1	7.1
Open defecation	38.8	21.2	21.2	13.8	13.8
N	82	39	40	36	27
χ^2	1.715	2.050	1.407	2.151	3.440
Initiation of breastfeed(in Hours)					
Within one hr	35.4	19.5	19.5	15.9	12.2
Same day	37.7	16	15.1	17.0	11.3
Next day	32.4	14.7	20.6	11.8	14.7
N	222	222	222	222	222
χ^2	1.546	1.096	1.371	1.202	0.694
Duration of breastfeeding					
>or = 6	25	25	0	25	0.0

months					
7-12 months	20	6.7	26.7	13.3	13.3
12+months	37.9	18	17.5	16	12.1
N	225	225	225	225	225
χ^2	2.157	1.412	1.689	0.320	0.574
Frequency of breastfeeding per day¹					
1-6	33.3	19.5	20.7	20.7	13.8
7-10	31.1	15.6	13.3	13.3	13.3
10+	51.2	4.7	16.3	14	14
N	175	175	175	175	175
χ^2	5.067	7.843**	1.181	2.391	2.201
¹ Among those who are currently breast feeding					

TREATMENT SEEKING BEHAVIOR:

Table-15: Treatment seeking pattern						
						%
Did they seek any treatment						
Yes						98.32
No						1.68
Type of treatment						
Outpatient						156
Inpatient						23
N						225
	Common cold	Fever	Pneumonia	Diarrhea	Others	
Outpatient	96.3	92.3	55.0	86.1	55.6	
Inpatient	2.4	7.7	30.0	5.6	22.2	
N	82	5.1	40	36	27	
	44.545***	12.167***	20.763***	5.728*	5.210*	
For outpatient treatment						
Source of treatment¹						
Government doctor/ dispensaries/ clinic		13.4	7.7	12.5	11.1	7.4
Private hospital/nursing home		82.9	89.7	75.0	83.3	70.4
χ^2		24.876***	11.827***	2.475	6.766**	0.344
Reason for not accessing public health services²						
Too far		30.5	28.2	15.0	30.6	14.8
χ^2		8.870***	1.985	0.760	2.984**	0.516
Long waiting hours		8.5	17.9	12.5	22.2	3.7
χ^2		0.020	4.781**	0.783	9.408***	1.019
Unfriendly staff		9.8	2.6	12.5	13.9	3.7
χ^2		1.979	1.276	2.660	3.593**	0.433
No seating arrangement		0	0	2.5	0	0
χ^2		0.576	0.211	4.646**	0.191	0.137
No doctors available		4.9	2.6	2.5	5.6	3.7

χ^2	2.431	0.002	0.005	1.378	0.127
Crowded	6.1	2.6	5.0	11.1	3.7
χ^2	0.405	0.548	0.001	3.568**	0.093
Travel cost	1.2	0	0	5.6	0
χ^2	0.689	0.423	0.436	10.594***	0.275
No medical facility/ medicines	2.4	2.6	0	2.8	0
χ^2	1.199	0.543	0.657	0.680	0.415
Others	63.4	59.0	52.5	55.6	48.1
χ^2	9.597***	1.596	0.144	0.572	0.033
Reason for not accessing private health services³					
Too expensive	11.0	10.3	10.0	2.8	3.7
χ^2	1.552	0.326	0.264	1.588	0.769
No proper treatment	2.4	0	5.0	5.6	0
χ^2	0.028	1.072	1.728	2.192	0.697
Others	3.7	5.1	5.0	5.6	11.1
χ^2	0.039	0.156	0.127	0.270	4.044**
¹ Who treated as outpatients.					
² Those who accessed private health facility.					
³ Those who accessed public health facility.					

COST ANALYSIS:

Table 16: Average healthcare expenditure of household in relation to morbidity profile for 0-5 yr children in Jaipur slums

	Total expenditure	Outpatient expenditure			Inpatient expenditure		
		Total	Medical	Non-medical	Total	Medical	Non-medical
Type of house							
Pakka	671.25	671.25	623.50	95.50	0.00	0.00	0.00
Kachha	2083.00	407.57	748.55	150.03	733.55	733.55	0.00
Semi pakka	2527.92	664.17	964.63	214.47	1052.91	1052.91	0.00
Education							
No education	1655.44	440.77	749.43	112.21	521.37	521.37	0.00
Primary education	3848.29	637.80	1002.71	351.60	1955.61	1955.61	0.00
Middle education	2520.30	598.83	935.60	204.27	1057.37	1057.37	0.00
Sec and Sr. sec education	1534.71	670.00	963.18	156.00	296.30	296.30	0.00
No of living children							
1-2	2376.84	594.65	861.36	226.59	960.78	960.78	0.00
3-5	1957.07	457.50	845.81	72.39	656.94	656.94	0.00
5+	2682.78	361.47	883.33	211.25	1058.82	1058.82	0.00

No_times							
1	2808.71	522.24	923.53	235.03	1158.19	1158.19	0.00
2	1745.80	712.13	757.73	116.59	839.69	839.69	0.00
3	1516.60	1516.60	1349.00	279.33	0.00	0.00	0.00
Monthly expenditure							
1000-5000	2357.86	459.72	766.53	179.65	955.00	955.00	0.00
5001-10000	2349.88	567.72	950.66	178.61	849.67	849.67	0.00
10000+	2038	522.76	723.57	192.86	854.27	854.27	0.00
Cold	1079.07	545.46	735.61	104.53	191.46	191.46	0.00
Fever	1000.61	293.82	348.04	114.27	424.56	424.56	0.00
Pneumonia	4689.45	1414.13	2059.42	509.93	2220.20	2220.20	0.00
Diarrhea	2272.96	501.19	596.35	158.63	1266.67	1266.67	0.00
Others	4004.64	1300.59	1505.75	416.75	2407.41	2407.41	0.00

Table 17: Average healthcare expenditure of household per episode in relation to background characteristics in Jaipur slums, Rajasthan

	Total expenditure on healthcare per episode	Out patients expenditure per episode	Inpatient expenditure
Type of house			
Pakka	1498.51	514.47	984.04
Kachha	571.25	571.25	0.00
Semi pakka	816.31	282.15	534.17
Education			
No education	670.63	281.74	388.89
Primary education	2172.04	536.63	1635.41
Middle education	1576.37	519.00	1057.37
Secondary and Sr secondary education	794.54	498.24	296.30
Number of living children			
1-2	1280.83	475.04	805.79
3-5	836.93	307.07	529.86
5+	1208.92	150.10	1058.82
Monthly expenditure of the household			
1000-5000	1109.53	323.69	785.83
5001-10000	1141.17	432.61	708.56
10000+	1180.91	388.80	792.11
Episode			
1	1680.43	522.24	1158.19
2	775.91	356.06	419.85
3	505.53	505.53	0.00
Morbidity profile			

Diarrhea	1207.91	296.80	911.11
Pneumonia	3078.13	1111.68	1966.45
Cold	411.73	316.00	95.73
Fever	416.57	204.29	212.28
Others	1133.35	396.74	736.61

Table 18: Proportion of healthcare expenditure of household per episode in relation to background characteristics in slums of Jaipur, Rajasthan

	Proportion of total household expenditure	Outpatient expenditure per episode	Inpatient expenditure
Age of the respondent			
18-24	50.9	52.8	47.4
25-29	30.2	27.8	36.8
30-35	18.9	19.4	15.8
χ^2	0.465	0.750	0.109
Religion			
Hindu	73.6	80.6	57.9
Others	26.4	19.4	42.1
χ^2	1.564	3.806*	0.643
Cast			
SC/ST	54.7	61.1	36.8
Non-SC/ST	45.3	38.9	63.2
χ^2	0.681	2.211	1.205
Type of house			
Pakka	50.9	50.00	52.63
Semi pakka	49.1	50.00	47.37
χ^2	1.471	0.838	0.560
Education			
No education	52.8	63.9	31.6
Formally educated	47.2	36.1	68.4
χ^2	0.043	2.607	3.467**
Working status			
Working	18.9	22.2	10.5
Non- working	81.1	77.8	89.5
χ^2	0.072	0.619	0.747
BPL Card			
BPL	5.7	5.6	5.3
Non-BPL	94.3	94.4	94.7
χ^2	0.763	0.506	0.272
Ownership of house			
Owned	90.6	86.1	100

Rented	9.4	13.9	0
□ ²	0.146	0.408	2.711*
Members in a household			
1-3	37.7	47.2	21.1
4-5	15.1	13.9	15.8
6+	47.2	38.9	63.2
□ ²	3.239	7.857	0.660
Treatment for outpatient			
Govt. hospitals, clinics	11.9	8.3	25.0
Pvt. Hospitals , clinics	88.1	91.7	75.0
□ ²	0.194	1.198	0.919
No. of Child			
1	18.9	19.4	26.3
2	43.4	47.2	31.6
3+	37.7	33.3	42.1
□ ²	1.092	1.550	0.409
Morbidity profile			
Diarrhea	11.3	8.3	26.3
□ ²	1.067	1.817	1.643
Pneumonia	39.6	38.9	47.4
□ ²	24.632***	14.216***	12.431***
Cold	37.7	50.0	10.5
□ ²	0.012	3.065**	6.019**
Fever	5.7	5.6	5.3
□ ²	6.893***	4.326**	2.11
Others	28.3	25.0	31.6
□ ²	18.368***	7.257***	7.533***
Number of living children			
1	62.3	66.7	57.9
2	32.1	30.6	31.6
3+	5.7	2.8	10.5
□ ²	0.408	1.625	0.266
Monthly expenditure of the household			
1000-5000	37.7	41.7	31.6
5001-10000	52.8	52.8	52.6
10000+	9.4	5.6	15.8
□ ²	5.061*	6.489**	0.232
Monthly income of the household			
<10000	23.1	22.2	27.8
10001-15000	32.7	33.3	27.8

15001-20000	30.8	30.6	33.3
20000+	23.5	13.9	11.1
□ ²	3.897	2.456	1.773

Table 19 :Net effect of socio-economic and demographic characteristics on the catastrophic health expenditure of total expenditure of households on child morbidity

Socio-economic characteristics	Reference category	Odds Ratio	95.0% C.I. for EXP(B)	
			Lower	Upper
Age of the respondent	18-24			
25-29		2.734	.753	9.919
30-35		1.939	.535	7.021
Education	No education			
Formally educated		.511	.177	1.471
Working status	Yes			
No		.620	.164	2.345
Religion	Hindu			
Others		.104**	.016	.677
Cast	SC,ST			
Non SC,ST		1.038	.263	4.091
Total members in a household	1-3			
4-5		.157**	.031	.793
6+		.067***	.009	.504
BPL Card holders	BPL			
Non-BPL		.859	.130	5.681
Ownership of house	Self			
Rented		.491	.109	2.203
Per capita income	Less than 16000			
16000-22500		.331	.063	1.738
22500-30000		.406	.060	2.743
30000+		.036**	.002	.712
Source for outpatient treatment		.943	.220	4.043
Dysentery		.016**	.000	.931
Diarrhea		.861	.191	3.882
Fever		.386	.042	3.549
Cold		1.607	.319	8.082
Pneumonia		15.405***	3.008	78.885
Others		13.007***	2.107	80.283
Monthly expenditure of household	1000-5000			
5001-10000		.333**	.101	1.095
10000+		.085**	.011	.673
Monthly income of household	<10000			
10001-15000		3.657	.645	20.742
15001-20000		13.488	1.242	146.446
20000+		20.248	.856	479.009
Constant		4.744		

Table 20 :Net effect of socio-economic and demographic characteristics on the catastrophic health expenditure of total expenditure of households on child morbidity				
Socio-economic characteristics	Reference category	Odds ratio	95.0% C.I. for EXP(B)	
			Lower	Upper
Age of the respondent	18-24			
25-29		1.724	.429	6.925
30-35		1.458	.380	5.590
Education	No education			
Formally educated		.327**	.106	1.014
Working status	Yes			
No		.391	.096	1.597
Religion	Hindu			
Others		.057**	.007	.438
Cast	SC,ST			
Non SC,ST		2.208	.496	9.830
Total members in a household	1-3			
4-5		.118**	.020	.711
6+		.080**	.009	.684
BPL Card holders	BPL			
Non-BPL		.751	.097	5.832
Ownership of house	Self			
Rented		.563	.126	2.519
Per capita income	less than 16000			
16000-22500		.323	.056	1.846
22500-30000		.342	.045	2.611
30000+s		.036**	.001	.991
Source for outpatient treatment		1.074	.214	5.398
Dysentery		.035	.000	2.639
Diarrhea		.592	.108	3.243
Fever		.355	.032	3.904
Cold		1.762	.313	9.910
Pneumonia		13.171***	2.342	74.066
Others		13.888***	2.023	95.348
Monthly expenditure of household	1000-5000			
5001-10000		.272**	.076	.972
10000+		.048**	.004	.541
Monthly income of household	<10000			
10001-15000		4.340	.648	29.052
15001-20000		21.816**	1.607	296.110
20000+		4.300	.086	215.062
Constant		7.786		

