STUDY TO EVALUATE KNOWLEDGE, ATTITUDE AND PRACTICE OF MOTHERS TOWARDS ACUTE RESPIRATORY INFECTION IN THEIR CHILDREN UNDER THE AGE OF FIVE YEAR IN URBAN POOR OF MOHALI DISTRICT OF PUNJAB

Dissertation
At
National Health Mission, Punjab

By
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Under the guidance of
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MBA Hospital & Health Management
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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

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This is to certify that **Dr. Rohit Sharma** student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone internship training at **National Health Mission, Punjab** from **20th February, 2015 to 29th April, 2015**.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

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TO WHOM IT MAY CONCERN

This is to certify that Dr. Rohit Sharma. MBA-Hospital and Health, student from IIHMR University, Jaipur, did his dissertation under National Health Mission, Punjab on the topic "A study to evaluate knowledge, attitude and practices of Mothers toward Acute respiratory infections in their children under the age of five years in urban poor of Mohali district of Punjab" from Mid of February 2015 to end of the April, 2015.

His approach to the project has been sincere, scientific and analytical toward the study. I wish him all the success in future endeavors.

Dated: 29.04.15.

Director
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INSTITUTE OF HEALTH
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **A study to evaluate knowledge, attitude and practices of Mothers toward Acute respiratory infections in their children under the age of five years in urban poor of Mohali district of Punjab** and submitted by **Dr. Rohit Sharma** Enrollment No. **IIHMR/PGDHM/2013-15/1492** under the supervision of **Dr. Alok Kmar Mathur** for award of MBA Hospital and Health Management of the university carried out during the period from **20th February, 2015 to 29th April, 2015** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

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Abstract

A study to evaluate knowledge, attitude and practices of Mothers toward Acute respiratory infections in their children under the age of five years in urban poor settings of Mohali district of Punjab

Dr. Rohit Sharma

Keywords: Acute Respiratory Infection, Knowledge, Attitude, Practice, Respiratory tract infection.

Objectives of the study:

- To assess the current knowledge level of mothers about cause, affect and management of ARI in target communities.

Introduction: A study was carried out in an urban poor of Mohali district of Punjab to evaluate knowledge, attitude and practice of mothers toward respiratory infection in their children under the age of five years.

Methods: In this cross-sectional study, 100 mothers were selected by convenient sampling method. Semi structured questionnaire was used for interview. Microsoft excel 2007 software was applied to analyze the data.

Results: In the study area, majority of mothers lies in age-group 21-30 years. Education level and employment status of mothers was very low almost 85 percent were illiterate and 84 percent mothers were unemployed. Knowledge level of mothers about respiratory diseases was very good, almost every mother knew about ARI. Major sources of information of knowledge in mothers were doctor/nurses and family members. Majority of

mothers knew about effect of air pollution, indoor temperature and humidity on respiratory diseases. All of the mothers believed that respiratory infection was caused by cold temperature and weather change but in addition to above 44% mothers believed that it is aggravated due to lack of care by parents. About 37 % believed that a virus/Bacteria/Germ was the cause of respiratory infection. All of the mothers said that Fever and cough were the major signs when they recognize the infection but sometimes in addition to these running nose (98%), Pasli chalna (82%), refusal to feed (81%) and noisy breathing (41%) was also the sign which recognizes the respiratory infection. Majority of mothers preferred to visit the doctor immediately (80%) when their child was sick, so health seeking behavior was good. Most of the mothers knew about the use of antibiotics in treatment of respiratory infection, which also shows good knowledge and health seeking behavior. Majority of mothers knew that prevention of respiratory infection was possible (96%). Around 60% mothers faced the problems in getting treatment, majorly faced financial problems.

Conclusion and suggestions: This study shows that most of the mothers with in the study population were illiterate and it has adverse impact on their prevention aspects of ARIs. Most of them knew about the respiratory infection in under five children but not in detail. Although they knew about effect of air pollution on acute respiratory infection but still they were using coal chulha in their house for cooking. Their health seeking behavior was good and they were visiting doctor immediately after recognizing the ARI. Majority of mothers faced the financial difficulties to visit private doctor. Regular efforts need to be made to educate mothers regarding the preventive measures of respiratory infections in under-5 children.

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At the beginning of the report I would like to express my special gratitude and appreciation to Sh. Hussan Lal, Mission Director (NHM) Punjab for providing me this opportunity to pursue my dissertation from National Health Mission, Punjab.

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Finally, and most importantly, I would like to thank God for allowing me to complete my dissertation project, my beloved parents for their blessings for the successful completion of this training.

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Abbreviations

ARI…… Acute respiratory Infection.

HF……. Health facility

NHM……. National Health Mission

KAP……. Knowledge Attitude Practice

AIDS ..... Acquired immuno-deficiency syndrome

ANC ..... Antenatal care

CHW ..... Community health worker

DHS ..... Demographic and Health Survey

DTP..... Diphtheria, tetanus and pertussis vaccine

EPI ..... Expanded Programme on Immunization

GAPP..... Global Action Plan for Prevention and Control of Pneumonia

GAPPD..... The integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea

HAP ..... Household air pollution

Hib..... Haemophilus influenzae B vaccine

HIV ..... Human immunodeficiency virus

HSS ..... Health system strengthening

IMNCI ..... Integrated Management of Neonatal andChildhood Illness

LPG..... Liquefied Petroleum Gas

MDG ..... Millennium Development Goal

MoH..... Ministry of Health

NGO ..... Nongovernmental organization

Spn ..... Streptococcus pneumonia

UNICEF..... United Nations Children‟s Fund

WASH ..... Water, sanitation and hygiene

WHO ..... World Health Organization

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Introduction:

Children are the future of a nation and healthy children mean healthy adults. The collective efforts made towards keeping children healthy through various practices like intake of healthy food, proper hygiene practices, timely treatment of diseases, accessibility to proper treatment at the right time, to name a few, will ensure a nation which creates a reservoir of empowered workforce for the future, capable of contributing towards the social, economic and financial requirements which make a country work.

However, much needs to be done and achieved to ensure that the children of today are healthy.According to UNICEF, 9.2 million children under age five died worldwide in 2007.Tragically, an estimated two-thirds of childhood deaths were preventable. [4] As per the WHO report 1999, every year, more than 10 million children die in developing countries before they reach their fifth birthday. Seven in 10 of these deaths are due to acute respiratory infections (mostly pneumonia), diarrhea, measles, malaria or malnutrition-and often to a combination illness. [5]

Infant and child mortality and morbidity remains a challenge especially in the developing world.With about 2 million under-five annual deaths, India also accounts for a quarter of the global child mortality.[2]

In India, common illnesses in children under 3 years of age include –

Fever - 27%, Acute respiratory infections -17%Diarrhea – 13% Malnutrition - 43% [6]

According to NFHS-3, 60% of the children have been brought to a healthcare facility with diarrhea, 69% have Acute Respiratory Infection and 71% have been brought with high fever.

Pneumonia and diarrhea remain major killers of young children. Together, these diseases account for 29% of all deaths of children less than 5 years of age and result in the loss of 2 million young lives each year. [8]

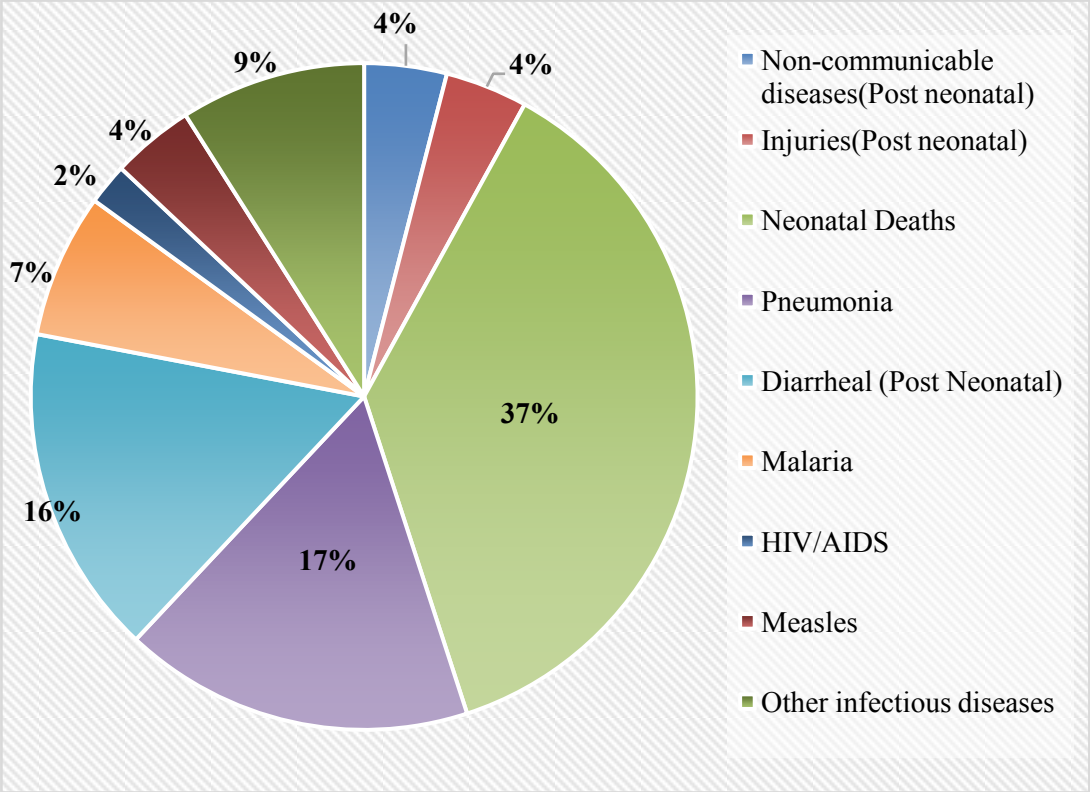
Pneumonia deaths are not distributed evenly through the global population or within any one country. The highest death rate from this disease is recorded in the least-resourced countries and in the poorest populations within those countries. Children of lower socioeconomic class or caste, minority ethnic groups and those living in isolated geographical areas suffer from cumulative inequities. These children are subject to higher prevalence rates of pneumonia, and more difficult access to health services despite being in greater need of those services. Evidence suggests that children from families in the poorest wealth quintile are less likely to receive high impact interventions than those in the richest quintile.

ARI may be classified into - Upper (AURI) and Lower Acute Respiratory Infection (ALRI), depending on the main organ affected,(nose, sinuses, middle ear, larynx, pharynx, versus trachea, bronchus, lungs).AURI are generally mild in nature and most often caused by virus, sometimes there is bacterial component [8]. The overwhelming majority of ARI death is due to ALRI, consisting mainly of pneumonia (70%). [9]

Pneumonia kills more children under five years of age than any other illness in every region of the world of the estimated 9 million child deaths in 2007,around 20% or 1.8 million, were due to pneumonia. In spite of its huge toll on human life, relatively few global resources are dedicated to tackling this problem. Mortality due to childhood pneumonia is strongly linked to malnutrition, poverty and inadequate access to health care. Consequently, more than 98% of pneumonia deaths in children occur in 68 countries where progress in

reducing under-five mortality is most critical. The burden that pneumonia places on families and the health system in low-resource countries in turn exacerbates inequalities; overwhelmingly, children who are poor, hungry and living in remote areas are most likely to be visited by this "forgotten killer". [16]

Causes of death of children under-5 years of age in the world:



Source: Global action Plan for Prevention and control of Pneumonia (GaPP), World Health Organization/The United Nations Children"s Fund (UNICEF), 2009

Infant and childhood mortality are sensitive indicators of inequity and poverty. It is no surprise to find that the children who are most commonly and severely ill, who are malnourished and who are most likely to die of their illness belong to the most vulnerable and underprivileged populations of low income countries.[7] Also, 84% of all healthcare

expenditure is out of pocket. This places a great number of families at risk of falling into poverty due to high health expenses [17].

In the state of Punjab in India, the major contributor to the child mortality being pneumonia and diarrhea and malnutrition, the incidence and severity of both pneumonia and diarrhea show a socioeconomic gradient due to exposure to risk factors related to the environment, such as lack of clean water, sanitation, indoor air pollution and overcrowding, and impaired immune response caused by inappropriate feeding practices, lack of exclusive breastfeeding, artificial feeding and under nutrition.

The population characteristics in urban slum area like socio-cultural variation, low socio economic status, poor health care utilization and over all compromised living condition make the slum children susceptible for various diseases.

This study aims to assess mothers knowledge, attitude and practices regarding ARI‟s in the under-5 children of Mohali district of Punjab.

Keeping in view, an attempt was undertaken to assess the pattern of morbidities in slum children under 5 years with the objectives to study the pattern of morbidities in children under 5 years age and to assess the awareness of parents about Health services available in the area and Health care utilization for the morbidities of their children

IMNCI strategy is helpful in not only developing skill of health care providers but also in improving mothers knowledge in identification of danger signs and care seeking behavior. Health care providers are trained to teach mothers about danger signs and counsel them on the need to seek care promptly if these signs occur. Thus its promotion will enable mothers to practice desired and accepted behavior.

Punjab has made great progress in infant and newborn care. The infant mortality rate of the state is far below the national average. The state has planned to track each and every child till the first year of age with a view to ensure child survival and hence, further reduce the IMR as per the target for 2015.(Punjab MCH ACTION PLAN 2014- 17)

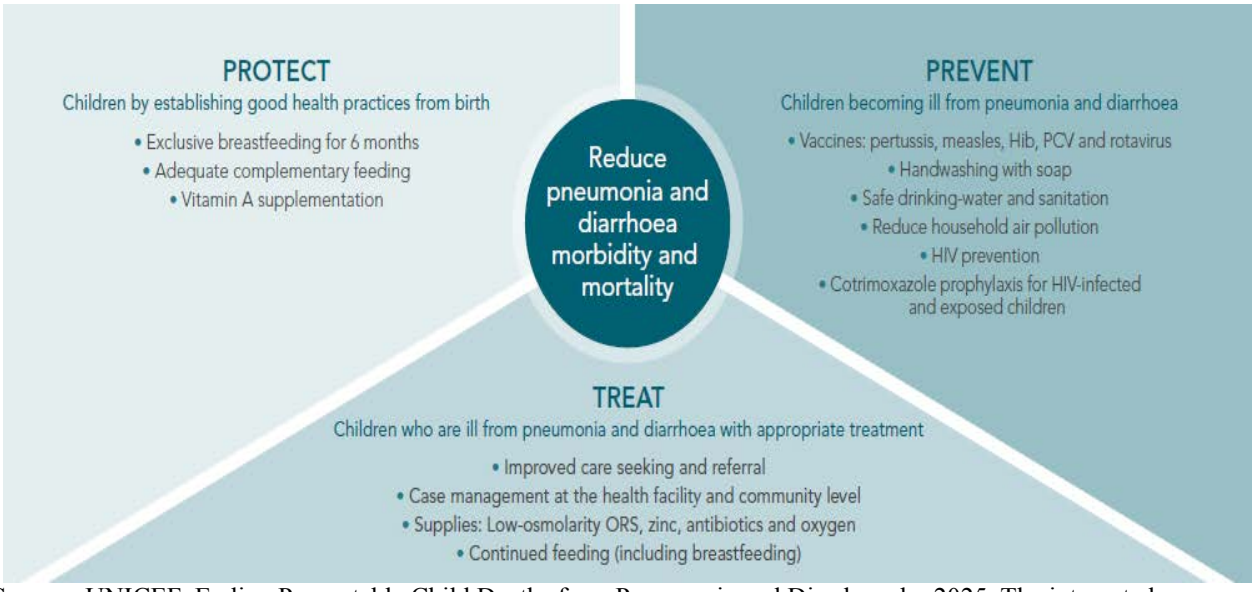
Prevention and treatment for Pneumonia: The GAPPD envisions the various interventions for controlling pneumonia and diarrhea in children less than five years of age as[15]:

- Protecting children by establishing and promoting good health practices;

- Preventing children from becoming ill from pneumonia and diarrhea by ensuring universal coverage of immunization, HIV prevention and healthy environments;

- Treating children who are ill from pneumonia and diarrhea with appropriate treatment.

The Protect, Prevent and Treat framework integrates proven effective interventions as [15]:



Source: UNICEF, Ending Preventable Child Deaths from Pneumonia and Diarrhoea by 2025, The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD), 2013.

Interventions that work [15]:

Over the past 20 years, research into specific pneumonia and diarrhoea interventions has shown that the following interventions and activities work:

- Promotion of exclusive breastfeeding reduces diarrhea and pneumonia.
- Use of vaccines against *Streptococcus pneumoniae* (Spn) and *Haemophilus influenzae* type b (Hib), the two most common bacterial causes of childhood pneumonia, and against rotavirus, the most common cause of childhood diarrhoea deaths, substantially reduces the disease burden and deaths caused by these infectious agents, as evidenced by countries that have introduced these vaccines.
- Use of vaccines against measles and pertussis in national immunization programmes substantially reduces pneumonia illness and death in children.
- Use of simple, standardized guidelines for the identification and treatment of pneumonia and diarrhoea in the community, at first-level health facilities and at referral hospitals substantially reduces child deaths.

- ORS, especially the low-osmolarity formula, is a proven, lifesaving tool in the treatment of children with diarrhoea. Use of zinc supplements with ORS to treat children with diarrhea reduces deaths in children less than five years of age.
- Innovative demand creation activities are important for achieving behaviour change and sustaining long-term preventive practices.
- WASH interventions, including access to and use of safe drinking-water and sanitation, as well as promotion of key hygiene practices, provide health, economic and social benefits.
- Reduction of household air pollution with improved stoves has been shown to reduce severe pneumonia. Safer and more efficient energy in the home prevents burns, saves time and fuel costs, and contributes to better development opportunities

Review of Literature:

About half of children were suffering from some form of morbidities which are preventable.

Malnutrition and Acute Respiratory Infections are major health problems in the slum children. [10] India, the country with the greatest number of child deaths from pneumonia, continues to struggle with improving rates of basic childhood immunizations. No improvements were seen in India's pertusis and measles coverage, and the rollout of Hib(pentavalent) vaccines in select states, which began at the end of 2011, only achieved 20% national coverage by 2013," the study 'Pneumonia and Diarrhea Progress Report 2014' by International Vaccine Access Center (IVAC) said.

The IVAC study said globally, every 20 seconds, a family loses its child to either pneumonia or diarrhea. According to the latest child mortality estimates for 2013,

pneumonia and diarrhea caused over 1.5 million under-five child deaths, respectively accounting for 15% and 9% of the total 6.3 million under-five deaths that occurred globally during the year.

Between 2000 and 2013, the global health community succeeded in decreasing the number of deaths due to pneumonia and diarrhea in children under the age of five years by 44% and 54%, respectively. However, reductions in annual child mortality rates for pneumonia and diarrhea have continued to be only modest, the report said. [11]

In a cross-sectional study, the acute respiratory infections and diarrheal diseases are still common among under five children through Govt. of India has made sincere efforts to improve the overall health of under five children using a multipronged approach under NRHM. Achievement of Millennium Development Goal of reducing child mortality by two thirds from the 1990 rate will depend on renewal efforts to prevent and control malnutrition, respiratory infections and diarrheal diseases. [12]

In a cross sectional study was conducted among mothers with under five years old children Mothers recognized symptoms of childhood diseases as fever, cough, inability to play, irritability and restlessness and diarrhea by 92.5%, 85.3%, 83.5%, 81.1% and 80.8% respectively

Fatal symptoms of childhood diseases cited were convulsions, difficulty in breathing, unconsciousness, breastfeeding or eating difficulties and drowsiness by 92.5%, 90%, 89.8%, 88.0% and 88.0% respectively.

In a study, most of the mothers (89.2%) found no factor preventing them from seeking care, 98.2% and 99.4% of mothers took their children to health facilities once sick or developed any symptom of severe childhood disease. [13]

A cross sectional study was covering 600 mothers living in urban and rural area of Burdwan district from October 2011 to February 2012 , that knowledge revealed that 40% of mothers

preferred private set up as a place of choice for treatment (more in urban area 55%). 70% of mothers preferred allopathic medicine as a choice of type of treatment. 42.5% of mothers rated diseases as serious(more in urban area 55%). 50% mothers were illiterate (70% in rural area) and 66.7% mothers were housewives. [14]

Rationale:

The solutions to tackling pneumonia do not require major advances in technology. Proven interventions exist. Children are dying because services are provided piecemeal and those most at risk are not being reached. Use of effective interventions remains too low; for instance, only 39% of infants less than 6 months are exclusively breastfed while only 60% of children with suspected pneumonia access appropriate care. Moreover, children are not receiving life-saving treatment; only 31% of children with suspected pneumonia receive antibiotics.

Children who are poor, hungry and living in remote areas are most likely to be visited by these "forgotten killers" and the burden placed by pneumonia on families and health systems aggravates existing inequalities.

Research questions:

- Are the mothers of children under the age of five years having sufficient knowledge, attitude and practice about respiratory tract infection in urban poor of Mohali, Punjab?

2. Objectives of the study:

The objective of the study was:

- To assess the current knowledge level of the cause, affect and management of ARI in target communities.

  KAP is an important piece of health service research that will provide concrete evidence to advocate for mobilize resources and to develop BCC message specific to the communities involved.

Operational definition:

1. **Knowledge**

   In this study knowledge refers to the awareness of the mothers regarding identification of danger sign and prompt availing of appropriate health services as measured by their responses to the items on the structured questionnaire.

2. **Attitude**

   Attitude in this study is defined as a complex mental state involving beliefs and feeling and values of mothers to act when child is suffering from respiratory infections.

3. **Practice**

   Practice is the act or process of doing something or action by the mother when her child is suffers from respiratory infection.

4. **Mothers**

   In this study mothers refer to the mothers of children between the age group of 2 months to 5 years.

5. **Children**

   In this study child refers to the children between age group of 2 months to 5 years.

6. Respiratory infection

Respiratory infection is defined as: "sudden onset of ant of the symptoms of running nose, cough, sore throat, difficulty in breathing".

Methodology:

A community based study was conducted on the mothers of children under five of age in the urban poor of Mohali district of Punjab during the period of February 2015 to April 2015.

Sample size:

The sample size was calculated using the formula for cross sectional survey. Assuming that 50% of the mothers has reasonable knowledge about various factors associated with the disease and that we require a precision of 10%, the sample size was calculated as:

$$\mathbf{n = Z^2pq/d^2 = (4*0.5*0.5/(0.1*0.1) = 100}$$

Where n = the desired sample size

Z = the standard normal deviate, usually set at 1.96(0r more simply at 2.0), which corresponds to the 95% confidence level.

P = the proportion of the estimated population and q = (1-p), d representing the about accuracy desired, set at 0.5.

Study population

The target population is 100 mothers above 18 years of age with at least one child under 5 years old and he/she ever suffer from respiratory infection, who lives in an urban poor area of Mohali, Punjab.

Exclusion criteria:

- Mothers who were not willing to participate in the study.
- Mothers of critically ill children.

Source of data collection:

Primary data: Structured questionnaire

Secondary data:

- Published reports
- Literature review

Methods of data collection:

After taking the permission from the mother a structured questionnaire was administer to evaluate the knowledge, attitude and practice of mother about respiratory infection. A total 100 mothers was involve in this study. The questionnaire was divivded into three sections, as the first section contains the information about age and education status of family. Second part compromise of question to access knowledge of mother and third part to

evaluate attitude and practice involve in treatment of respiratory infection in their children‟s.

Analysis plan:

Data collected was analyzed with the help of SPSS version 16 software and Microsoft Excel 2007.

Ethical consideration:

- Confidentiality
- Informed Consent from the respondents**.**

Analysis:

These questions were quantitative in nature. A total of 100 mothers were questioned in a defined geographical area.

Table 1: Demographic data on sample of 100 mothers and their children

Characteristic	Number		Characteristic	Number
Age of the mother (in years)			**Religion**	
Below 18	0		Hindu	94
18-20	6		Muslim	6
21-25	55		Christian	0
26-30	22		Sikh	0
31-35	6		Total	100
36-40	7			
41-45	2			
46-50	2			
Total	100			
Education level of mother			**Occupation of Mother**	
Illiterate	85		Student	0
Primary	15		Unemployed	84
Secondary	0		Employed	16
College	0		Total	100
Other	0			
Total	100			
Age of the child			**Sex of the child**	
0-1 years	20		Male	56
1-2 years	17		Female	44
2-3 years	11		Total	100
3-4 years	21			
5-4 years	31			
Total	100			

Table 2.1: Knowledge of mothers toward respiratory diseases

Question: Do you know about respiratory disease among the children?

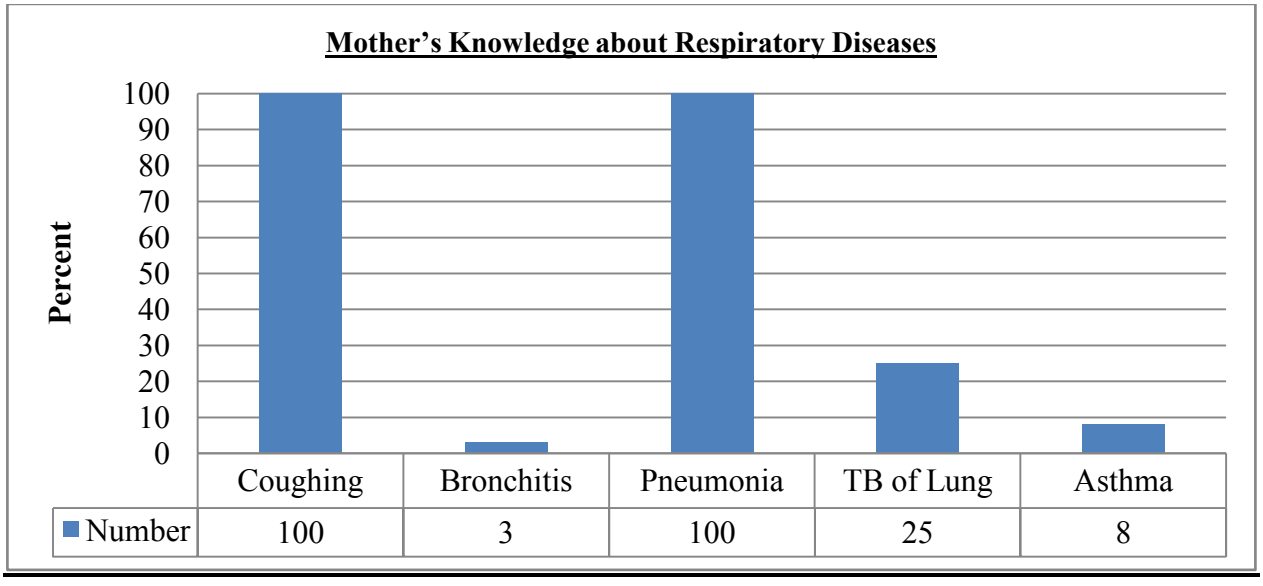
Response	Number of mothers
Yes	100
No	0
Total	100

All mothers from the sample population know about the respiratory diseases among children.

Table 2.1.2 If Yes, what disease do you know?

Particulars	Percent
Coughing	100
Bronchitis	3
Pneumonia	100
TB of Lung	25
Asthma	8

Graph: 1 Mother's Knowledge about Respiratory Diseases



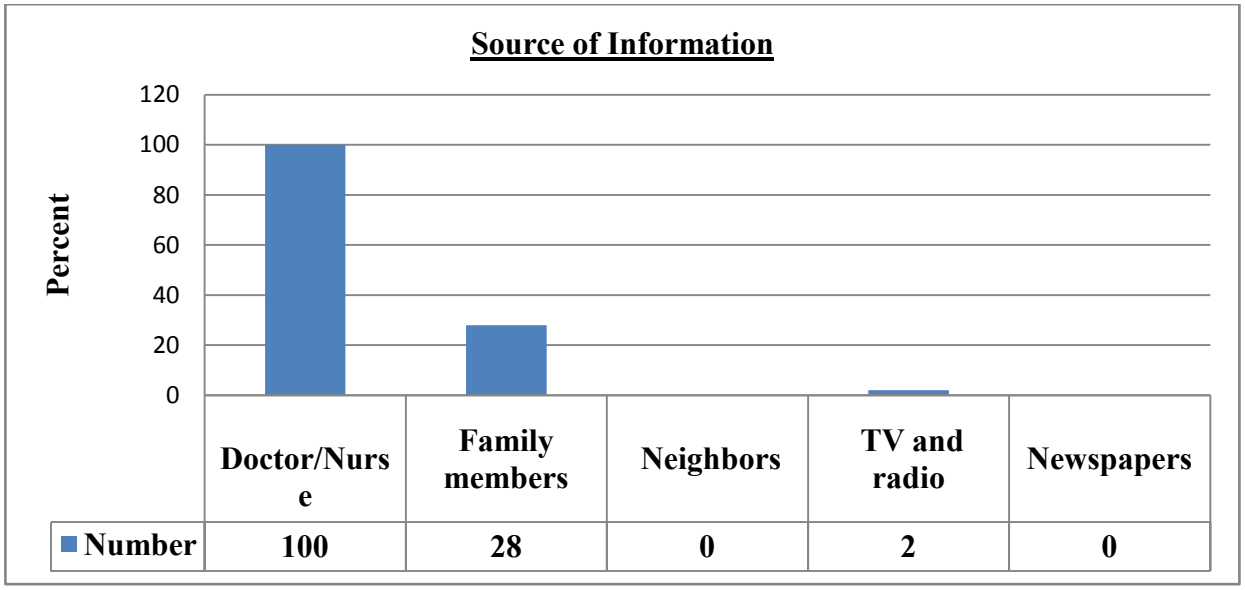
- Out of 100 mothers who have knowledge about respiratory diseases, all of them knew about coughing and Pneumonia, around 3 respondents knew about Bronchitis, 25 respondents knew about TB Lung and 8 respondents knew about Asthma.

Table 2.2 Source of Information:

Question: From which source do you get information on respiratory disease among children?

Particulars	Percentage
Doctor/Nurse	100
Family members	28
Neighbors	0
TV and radio	2
Newspapers	0

Graph: 2 Source of Information

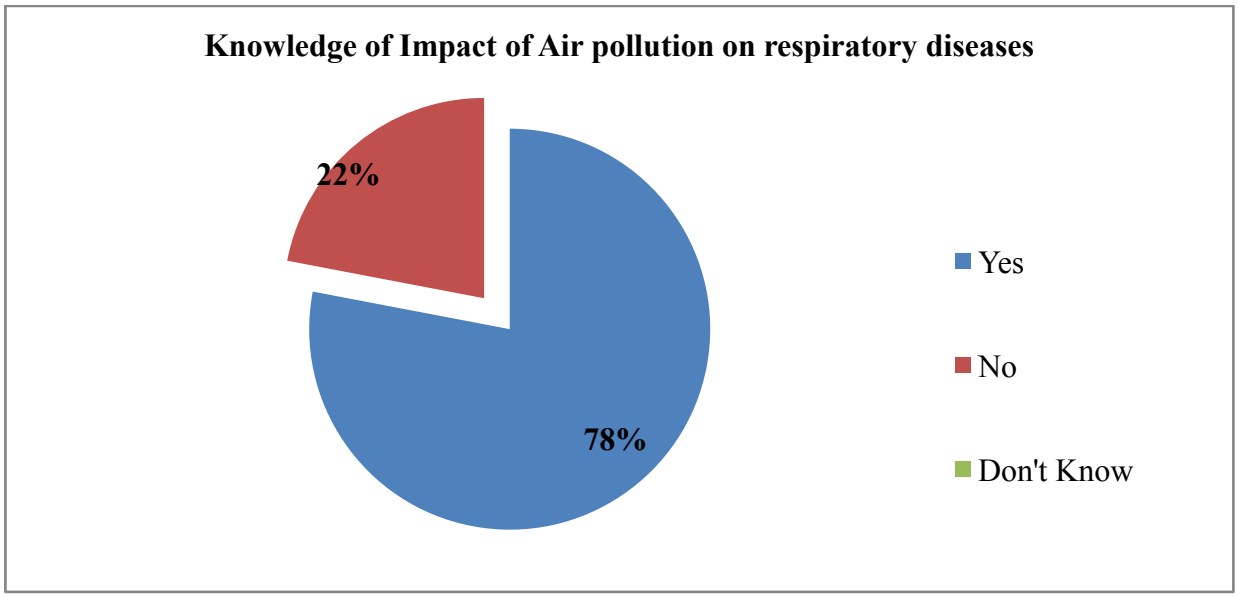


- Major source of information about respiratory diseases among the sample population was Doctor/nurse and family members. Around all of them got know from Doctor/Nurse and 28 respondents also got information from family members.

Table 2.3 Knowledge of Impact of Air pollution on respiratory diseases

Response	Percent
Yes	78
No	22
Don't Know	0
Total	100

Graph 3: Knowledge of Impact of Air pollution on respiratory diseases

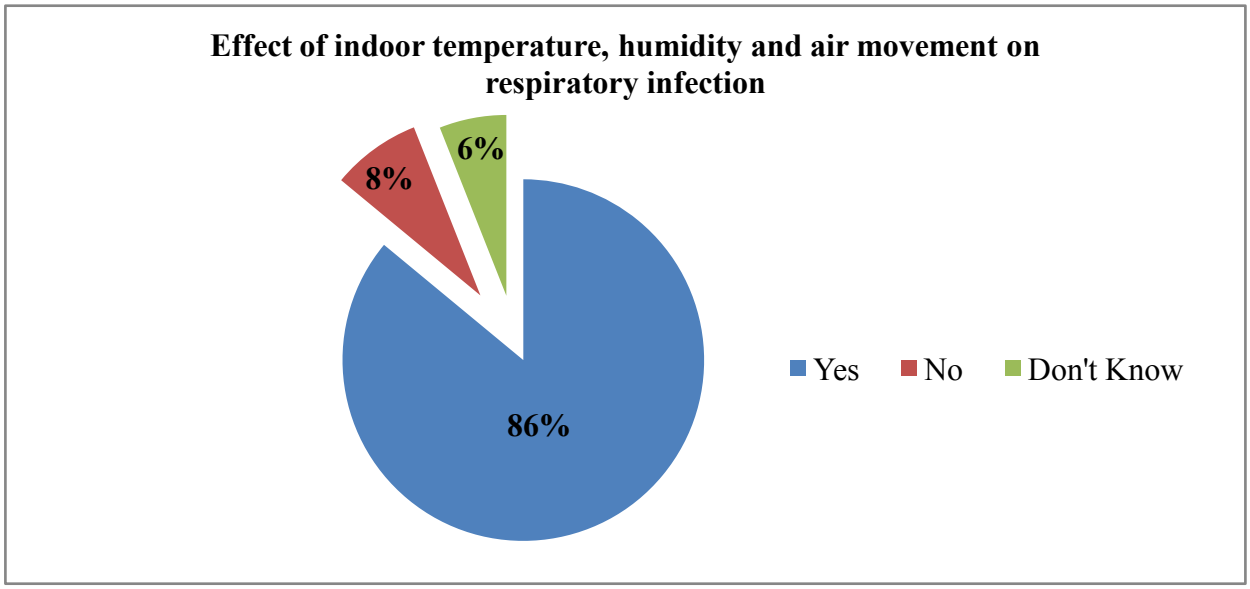


- Out of total 100 sample 78 respondents told that pollution aggravates the respiratory diseases, while 22 respondents said no effect of air pollution on respiratory diseases.

Table 2.4 Effect of indoor temperature, humidity and air movement on respiratory infection:

Response	Percent
Yes	86
No	8
Don't Know	6
Total	100

Graph: 4 Effect of indoor temperature, humidity and air movement on respiratory infection

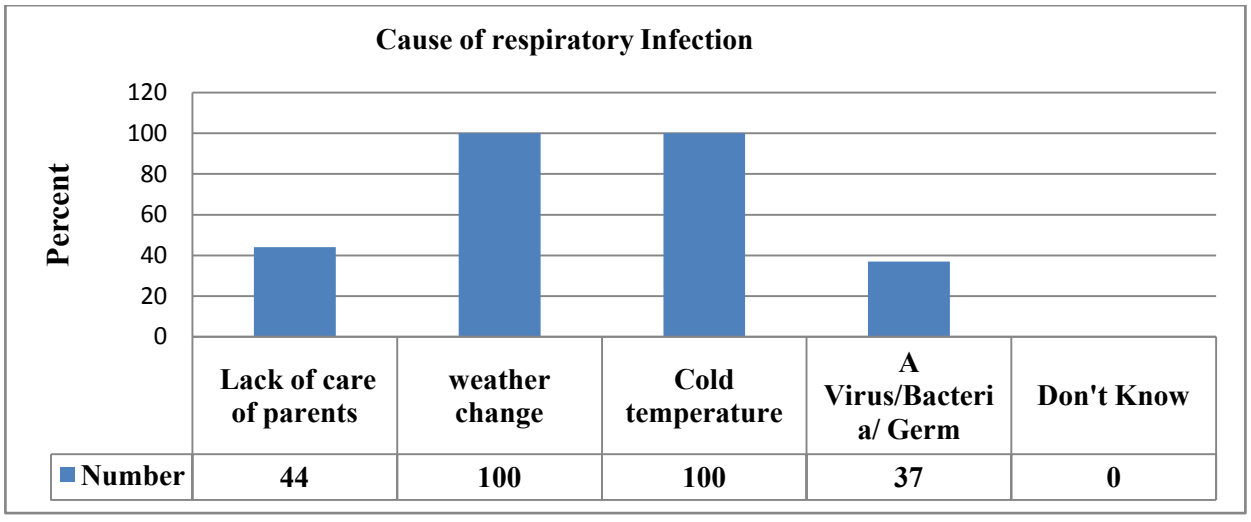


- When asked about effect of humidity and indoor temperature on respiratory diseases in children, 86 respondents said yes, 8 respondents said no and around 6 respondents said don‟t know.

Table: 2.5 Cause of respiratory Infection

Particulars	Percentage
Lack of care of parents	44
weather change	100
Cold temperature	100
A Virus/Bacteria/ Germ	37
Don't Know	0

Graph: 5 Cause of respiratory Infection



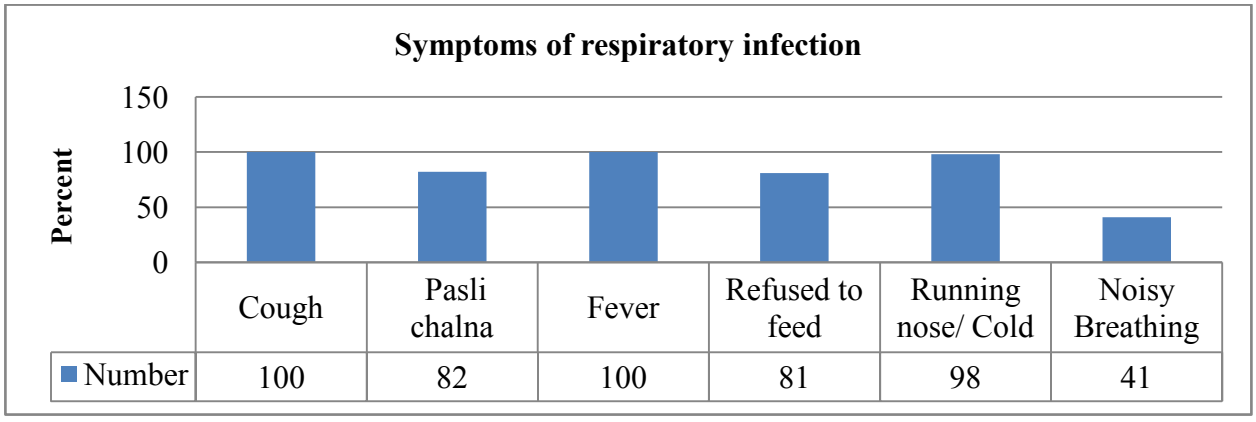
- Out of 100 mothers who have knowledge about respiratory diseases among children, all of them said weather change and cold temperature are the major causes.

In addition to above mentioned causes 44 respondents also thought that care of parents and 37 respondents thought that a Virus/Bacteria/ Germ causes the respiratory infections.

Table: 2.6 Symptoms of respiratory infection

Particulars	Percentage
Cough	100
Pasli chalna	82
Fever	100
Refused to feed	81
Running nose/ Cold	98
Noisy Breathing	41

Graph: 6 Symptoms of respiratory infection

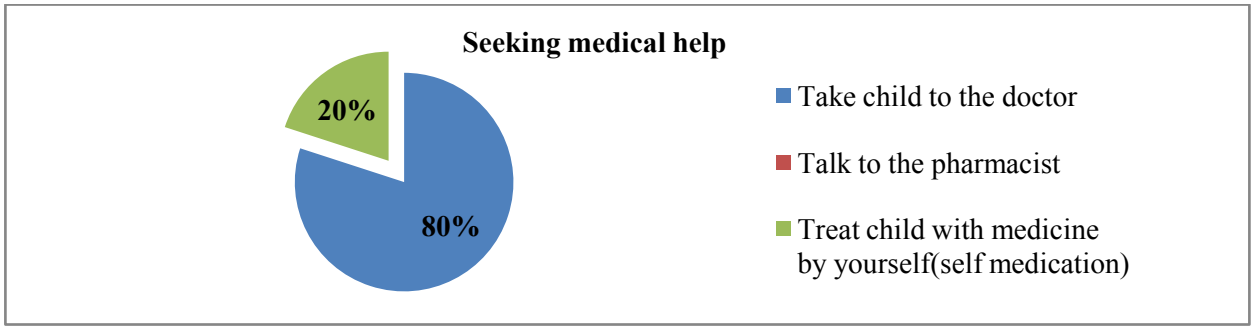


- Out of 100 mothers, all of them consider cough and Fever are major symptoms of ARIs in addition to these , 82 mothers consider pasli chalna, 81 mothers consider Refused to feed, 98 mothers considers running nose/cold and 41 mothers considers Noisy breathing are the main symptoms of the ARIs.

Table 3.1 Seeking medical help (What would you do when your child is suffering with respiratory infection?)

Particulars	Percentage
Take child to the doctor	80
Talk to the pharmacist	0
Treat child with medicine by yourself(self medication)	20
Go to Tantric/ Baba	0
Total	100

Graph: 7 Seeking medical help (What would you do when your child is suffering with respiratory infection?)

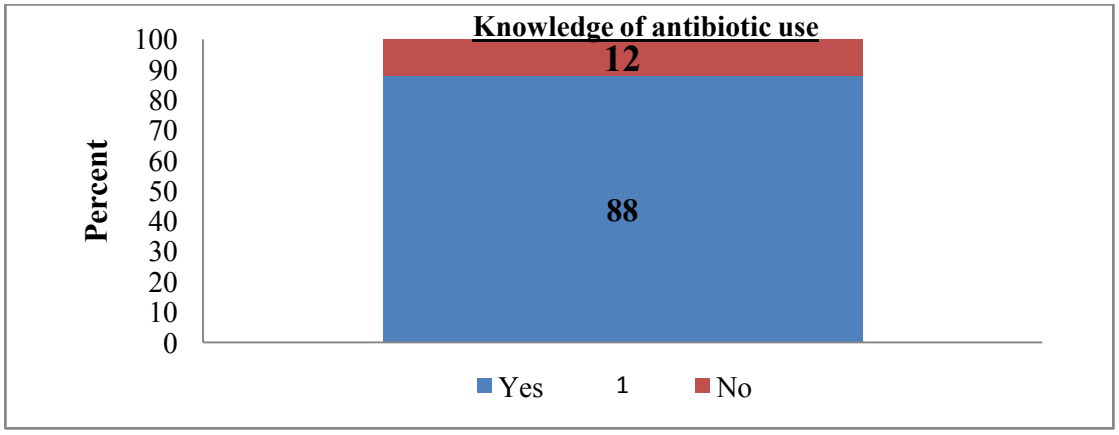


- Out of 100 mothers, 80 mothers say that they take their children to the doctor and rest 20 mothers treat their children by themselves (self medication) for the treatment.

Table: 3.2 Knowledge of medicine which is used for respiratory infection: (Do you know the use of antibiotics?)

Response	Percent
Yes	88
No	12
Total	100

Graph: 8 Knowledge of antibiotic use (Do you know the use of antibiotics?)

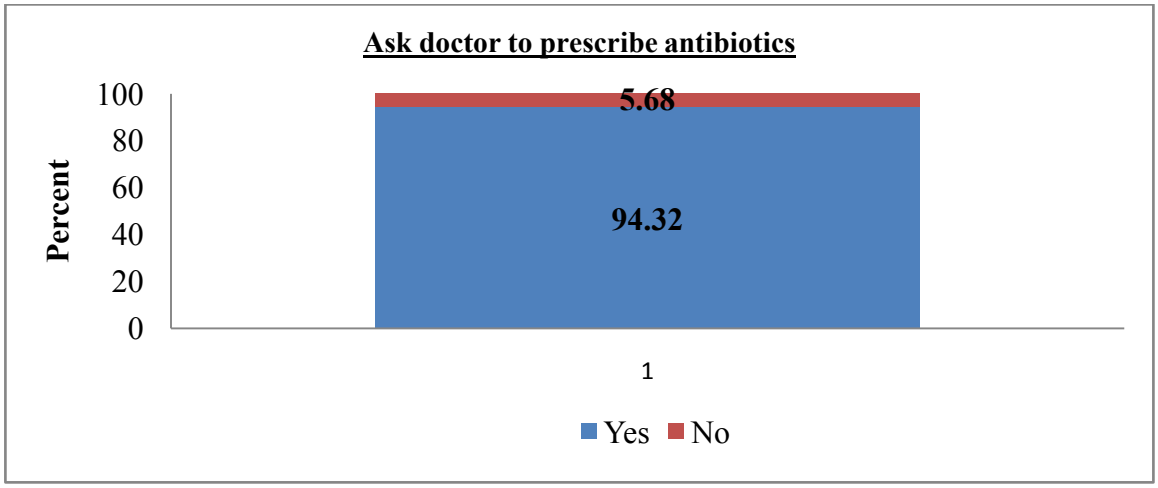


- Out of 100 mothers, 88 mothers have the knowledge of antibiotic use in ARIs treatment.

Table: 3.2.1 Ask doctor to prescribe antibiotics (If yes then, have you ever asked to the doctor to prescribe antibiotics for treating infection?)

Response	Percentage
Yes	94.32
No	5.68
Total	100

Graph: 9 Ask doctor to prescribe antibiotics

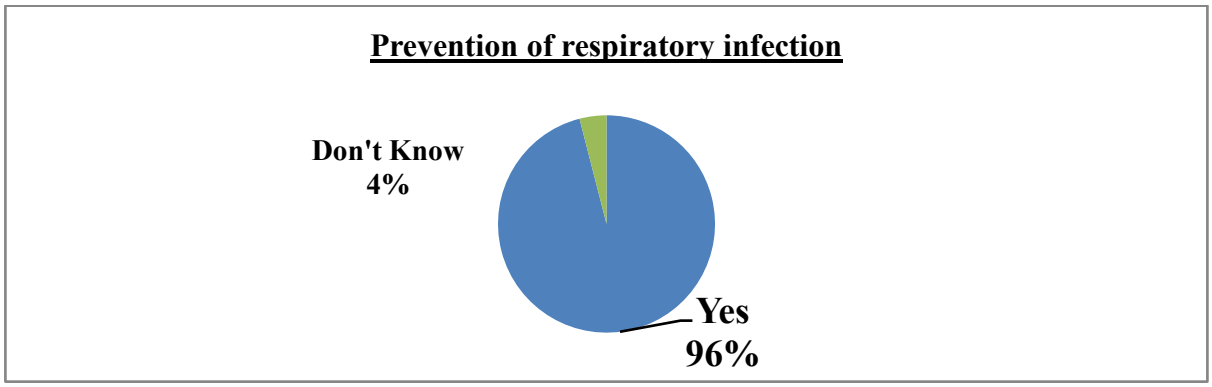


- Out of 88 mothers who knew about antibiotics use in ARIs treatment, 83 mothers asked the doctor to prescribe antibiotics and 5 mothers did not ask the doctor to prescribe the antibiotics.

Table: 3.3 Prevention of respiratory infection is possible

Response	Percent
Yes	96
No	0
Don't Know	4
Total	100

Graph: 10 Prevention of respiratory infection

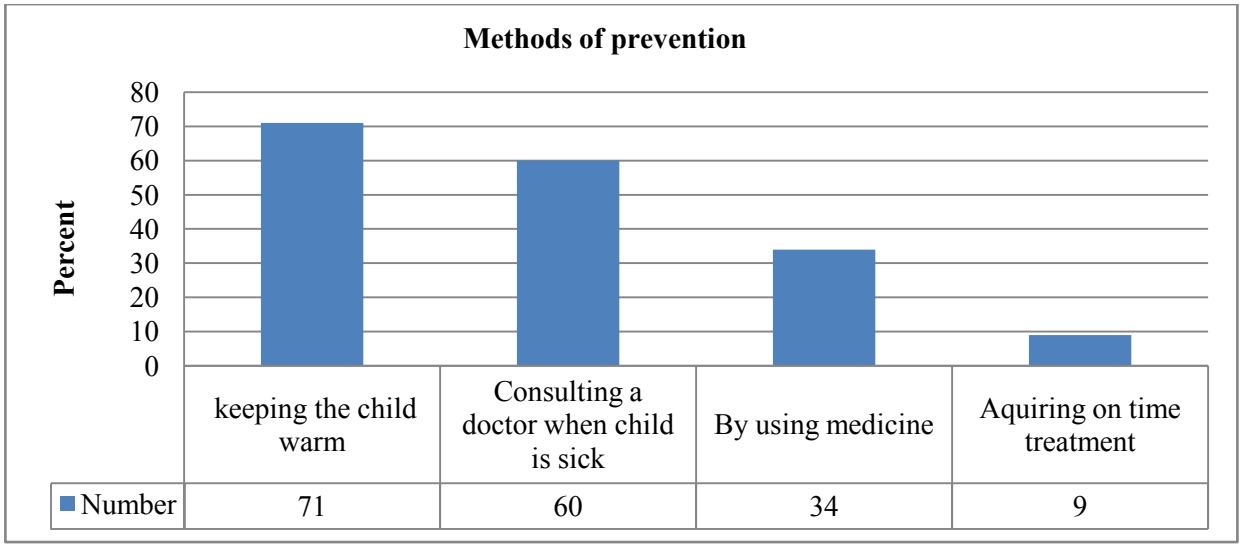


- Out of 100 mothers, 96 mothers said that prevention is possible and 4 mothers don't knoe about its prevention.

Methods of prevention (Table 3.4)

Particulars	Percentage
keeping the child warm	71
Consulting a doctor when child is sick	60
By using medicine	34
Acquiring on time treatment	9

Graph: 11 Prevention of respiratory infection is possible

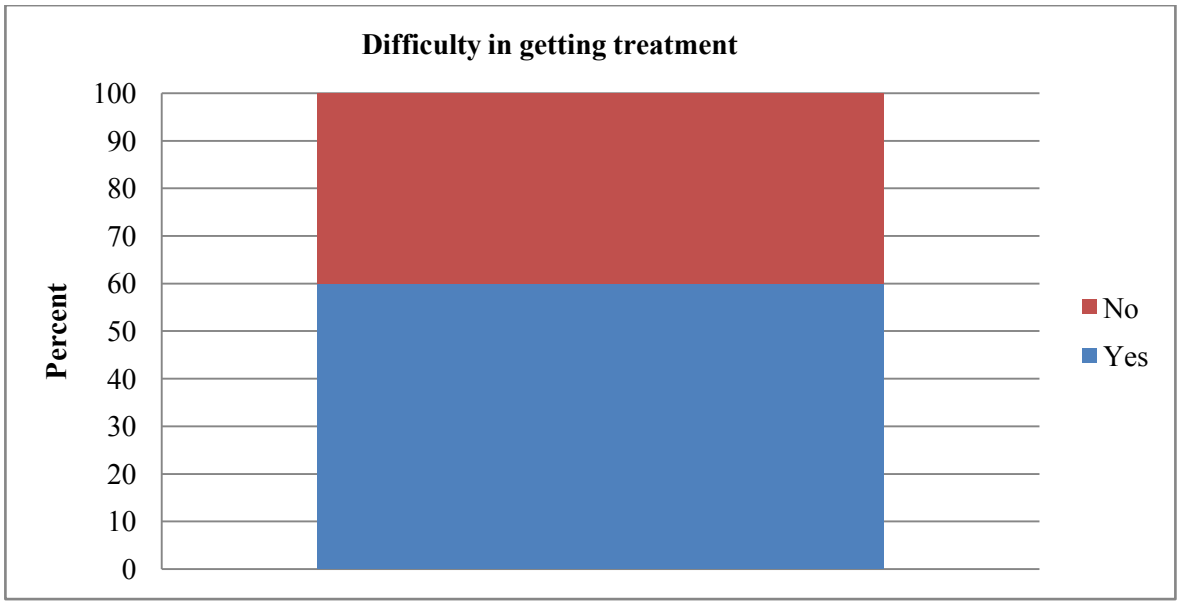


- Out of 100 mothers, 71 think that keeping the child warm, 60 think that consulting doctor when child is sick, 34 think that by using medicine and 9 think that acquiring on time treatment are the method of prevention.

Table: 3.5 Difficulty in getting treatment

Response	Percent
Yes	60
No	40
Total	100

Graph: 12 Difficulty in getting treatment

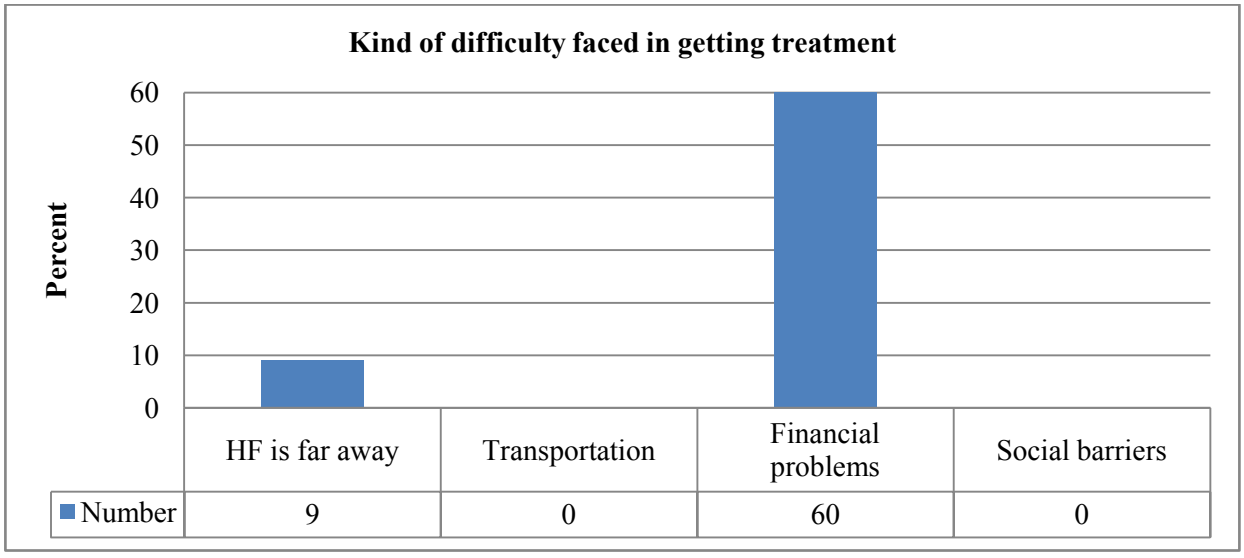


- Out of 100 mothers 60 mothers have faced difficulty in getting treatment and 40 haven't faced any difficulty in getting treatment.

Table: 3.5.1 Kind of difficulty faced in getting treatment

Particulars	Number
HF is far away	9
Transportation	0
Financial problems	60
Social barriers	0

Graph: 13 Kind of difficulty faced in getting treatment



- Out 60 mothers who has faced any difficulty in getting treatment, all of them faced the financial problem and in addition to that 6 mothers also faced Health facility is far problem.

Findings:

General:

- In the study area, majority of mothers are in the age between of 21-30 years and only 6 mothers are in the 18-20 years age group. No mother was aged below 18 years which is a good sign. This shows that no premature marriage took place in the study area. Also people were aware about premature marriage.
- Education level and employment status of mothers was very low almost 85 out of 100 mothers were illiterate and 84 out of 100 mothers were unemployed.

Knowledge:

- Knowledge level of mothers about respiratory diseases was very good, almost every woman knew about them.
- Major sources of information of knowledge in mothers were doctor/nurses and family members. People were aware about services provided in government hospitals for free of cost but they don‟t like to go there. They faced plenty of issues in getting treatment in government hospitals. They normally visited the private doctors for the treatment, which saves their time in getting treatment.
- Majorly mothers knew about effect of air pollution, indoor temperature and humidity on respiratory diseases. Almost every second house using coal chulha for cooking. They didn‟t know the effect of smoke produced by coal chulha in the house on respiratory diseases.
- Almost all of the mothers believed that respiratory infection is caused by cold temperature(100%) and weather change (100%) but in addition to above 44%

mothers believed that Lack of care of parents and 37 % believed that A virus/Bacteria/Germ were also the causes of it.

- All of the mothers said that Fever and cough were the major signs when they recognize the infection but sometimes in addition to these running nose, pasli chalna, refusal to feed and noisy breathing were also the sign which recognizes the respiratory infection.

Attitude:

- Majorly mothers preferred to visit the doctors immediately (80%) when their child was sick, so health seeking behavior was good.
- Majority of children got sick with respiratory infections in last one year was more than two (65%) which is because of poor sanitation in the area and use of coal chulha use in the houses.

Practice:

- Most of the mothers knew about the use of antibiotics in treatment of respiratory infection and asked the doctor to prescribe them, which also shows that good health seeking behavior.
- Majority of mothers knew that prevention of respiratory infection is possible (96%) and consulting doctors and also keeping the child warm for that.
- Around 60% mothers faced the problems in getting treatment and most of them majorly faced financial problems.

Suggestions:

The study has provided with the useful data from the respondents. Following are the Suggestions:

To improve knowledge and Attitude:

- There is a need to increase the efforts to bring awareness about public health services and to change their health care seeking behavior of community, on a priority basis. There may be regular education regarding ARIs and services provided at public health institutions.
- A regular visit by health staff to these areas to educate and promote prevention methods like breast feeding habits, clean drinking water, proper sanitation and hygiene.

To improve practice:

- Also regular check up of under five children by health staff and motivate mothers to use best practices to keep their child free from any illness.
- A regular visit by doctors in a week to these areas to provide treatment regarding their health problems and educate them to receive treatment in government hospitals.

Limitation of study:

- The study and its results are limited to the district Mohali of Punjab.
- Due to limited time and resources the study was carried out for a limited sample.
- All the results in detail to be found are not there although data are available more results are yet to be found.
- In this study main focus is acute respiratory infections only, not much result on other aspects found.

Conclusion:

The findings in this study document the incidence of ARIs among the under five population of Mohali and the treatment- seeking behavior of mothers. However, the interpretation of the findings might be limited to recall and the interviewer bias.

This study shows that most of the mothers with in the study population were illiterate and it has impact on their prevention of ARIs. Most of them know about the respiratory infection in under five children but not in detail. Also they knew about antibiotic use and asked the doctor to prescribe them. People in community felt the problems in visiting government health facilities for treatment. Also they knew about effect of air pollution on acute respiratory infection but still they were using local coal made chulha in their house for cooking. There was a lack of awareness about prevention methods in mothers for acute respiratory infections in under five children. But, they were very much aware about treatment methods and visited doctor immediately. Majority of mothers faced the financial difficulties in visiting the doctor but nevertheless majority of mothers prefer to consult the doctor when their child get ill rather than go to the pharmacist and tantric.

Efforts need to continue to educate mothers about the cause‟s recognition of signs and treatment of respiratory infections in under five children.

Annexure:

I. Health care seeking behavior of people in the Urban poor of the Mohali district of Punjab.

Health care seeking behavior has been defined as the activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate help. Health care seeking behavior is a particular aspect of help seeking behavior. It is clear that people differ in their willingness to seek help from health care services. Some go rapidly for treatment, others only when in great pain or in an advanced state of ill health. People do not seek one source of care, and differ in their behaviors according to who is affected and what diseases are experienced. The decision to seek care is mediated by opportunities to seek care, especially concerning time and cost. There are indications that cost of prescribed medicines, poor access to facilities and patient delays affect the patronage and utilization of public health services which increase the use of other treatment sources such as community pharmacist, unqualified practitioners, and religious or spiritual beliefs.

Research into health care seeking behavior can provide insights into why some people opt out of certain services, why people are late in attending services and/or why some levels of health facilities are bypassed by intended users. These behaviors should be taken into account in organizing the provision of health care, thereby reacting to demand side considerations to maximize utilization of health services to the people.

Utilization patterns give an indication of current preferences amongst people already deciding to seek care. These data shows where populations, given options available to them, feel they receive services most suited to them in terms of cost, convenience, quality and acceptability. Utilization patterns can help inform where a target population already goes for health management, allowing services and referral to be built up and to maximize their impact. They can also indicate where they do not go and where services may be downgraded.

Health care seeking behavior in urban poor community of Mohali district was good. People were aware about health services and want to receive health service but utilization and acceptance of public health services was poor. People were very much interested to receive health services for their children and for themselves. They regularly visited health services when they were ill and to maintain good health level in their family.

Majorly they visit Private health providers because they have very limited time but cost of those services was very high. They faced some issues in receiving health services in public hospitals. They have issues like public sector hospital visit requires a full day and a lot of referral system. The perception is that public sectors providers will not treat the poor efficiently.

Whenever they visited the public sector hospitals they didn‟t receive treatment on time and also took plenty of time. They don‟t have that much time to visit again and again because they work on a daily basis to earn money to bear the expenses of their families. People have faced a lot of problems regarding the payment for health services but in spite of that they are willing to pay for health services in future. Whenever they have received private sector

services it costs them very high, they have to take loan from the neighbors on interest and also sell their jewelry to get money for the treatment.

Although the public health professionals like ANMs and staff nurses have regularly visited these areas for immunization but services regarding ARIs were very low and they had visited the private sector hospitals for them.

So overall people in urban poor areas of Mohali were aware and ready to pay for about health services but utilization and acceptance of public health services was low.

Some short experiences with Mothers of urban poor areas of mohali:

"We are aware about health services for ARI and other childhood illnesses for under five in public sector hospitals. But we don"t want to go there. We like to go to private sector hospitals. Public sector providers don"t treat poor people in good way, they don"t listen to what we want from them. They refer us to higher facilities and we are not able to get treatment on time. If we will go there then we have to spend plenty of time in there and a full day is required in getting treatment, so we prefer to go to the private doctors to get treatment easily and in short time. Although the private doctor costs more but we like to go there. We will take loan on interest from neighbors and also take loan on our jewelry sometimes."

Words of a Mother in Balmiki colony.

“Government nurses visit our place for immunization only and they don‟t provide us with any services regarding ARI and any other illnesses of under five children. We visit the private doctor for the treatment. We don‟t like to go to government hospital though it is very near to us because it takes plenty of time to get treatment there. Government doctors don‟t listen to the poor. They just refer us to the higher facilities or call us again and again. Private Doctors cost is very high, sometime it costs around 500-600 rupees for normal tests but we have no other option. Sometimes we take loan for that visit. Also we are facing a lot of problems like no regular clean water supply and proper sanitation. Government only treat us as a vote bank, they come to our areas only at time of elections but don‟t provide ration card to get subsidized food item. There is a difficulty to survive as a poor.”

Words of a Mother in Shaheed Udham singh colony.

CONFIDENTIAL

(For research purpose only)

II. Questionnaire Schedule for Mother"s of U-5 years children

A study to evaluate knowledge, attitude and practices of Mother toward Acute respiratory infections in their children under the age of five years in Urban poor of Mohali district of Punjab.

Block name: _____ **Area name:** _____

Phone no. of the household: _____

No. of the children of age group age group U-5 years: _____

Informed Consent

Namaste! My name is Dr. Rohit Sharma and I am from National Health Mission, Punjab. I am doing my dissertation from there. I am conducting a survey to evaluate knowledge, attitude and practices of Mother toward Acute respiratory infections in their children under the age of five years in urban poor of Mohali district of Punjab. We would greatly appreciate the participation of your household in this survey.

I would like to ask you some questions about health services and awareness about Acute respiratory infections of the children in the age group 12-23 months. The survey usually takes 20-30 minutes to complete. Information you provide will be kept strictly confidential and used only for research. This questionnaire is for Acute respiratory infections of children. We learn that there is a child in the age group U-5 years in this household.

Participation in survey is voluntary, if you choose to participate, you may withdraw at anytime. However we hope that you will take part in survey since your participation is important.

May I begin the interview now?

- Respondent agrees to be interviewed……..1.Q.no1.
- Respondent does not agree to be interviewed……2.End.

Interviewer's Name: …… **Date: …….**

Signature. ……

S. No.		Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
1	Name of the child:					
2	Age 1= 0-1 year 2= 1-2 year 3= 2-3 year 4= 3-4 year 5= 4-5 year	 1 2 3 4 5	 1 2 3 4 5	 1 2 3 4 5	 1 2 3 4 5	 1 2 3 4 5
3	Sex of the child 1= male 2= female	 1 2	 1 2	 1 2	 1 2	 1 2
4	Religion 1= Hindu 2= Muslim 3= Christian 4= Sikh 99= Others	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 9 9	 1 2 3 4 9 9	 1 2 3 4 9 9
A) General Part						
1	Age of the mother (in years):					
2	Education level of mother? 1= Illiterate 2= Primary 3= Secondary 4= college 99= Other	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99

3	Occupation 1= Student	Mother 1	Father 1	Mother 1	Father 1	Mother 1	Father 1	Mother 1	Father 1	Mother 1	Father 1
	2= Un employed	2	2	2	2	2	2	2	2	2	2
	3= employed	3	3	3	3	3	3	3	3	3	3
	4= Unpaid family Worker	4	4	4	4	4	4	4	4	4	4
	99= Other	99	99	99	99	99	99	99	99	99	99
B.	**Knowledge of mother**										
4	Do you know about respiratory disease among the children? Yes=1 No=2	 1 2	 1 2	 1 2	 1 2	 1 2	
4a	If Yes, what disease do you know?(multiple answers allowed) Coughing=1 Bronchitis=2 Pneumonia=3 TB of Lung=4 Asthma=5 Acute respiratory infection=6 All of these=7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	

5	From which source do you get information on respiratoty disease among children? 1. Doctor/Nurse 2. Family members 3. Neighbors 4. TV and radio 5. Newspapers 6. Others	 1 2 3 4 5 6	 1 2 3 4 5 6	 1 2 3 4 5 6	 1 2 3 4 5 6	 1 2 3 4 5 6
6	Do you know that air pollution affects respiratory diseases among the children? Yes= 1 No= 2 Don't Know=11	 1 2 11	 1 2 11	 1 2 11	 1 2 1 1	 1 2 11
7	In your opinion do indoor temperature, humidity and air movement have and effect on respiratory infection? Yes= 1 No= 2 Don't Know=11	 1 2 11	 1 2 11	 1 2 11	 1 2 1 1	 1 2 11

8	What cause respiratory infection?(multiple answers allowed) 1. Lack of care of parents 2. weather change 3. Cold temperature 4. A Virus/Bacteria/ Germ Don't Know=11	 1 2 3 4 11	 1 2 3 4 11	 1 2 3 4 11	 1 2 3 4 1 1	 1 2 3 4 11
9	What are the symptoms of respiratory infection?(multiple answers allowed) 1. cough	 1	 1	 1	 1	 1
	2. Pasli chalna (chest indrawing) 3. Fever 4. Refused to feed 5. Running nose/ Cold 6. Noisy Breathing Don't Know=11	2 3 4 5 6 11	2 3 4 5 6 11	2 3 4 5 6 11	2 3 4 5 6 1 1	2 3 4 5 6 11

C. Attitude & Practice of mother						
S. No.		**Respondent 1**	**Respondent 2**	**Respondent 3**	**Respondent 4**	**Respondent 5**
10	What would you do when your child is suffering with respiratory infection?					
	1. Take child to the doctor	1	1	1	1	1
	2.Talk to the pharmacist	2	2	2	2	2
	3. Treat child with medicine by yourself(self medication)	3	3	3	3	3
	4. Go to Taantrik/ Baba	4	4	4	4	4
	Don't Know=11	11	11	11	11	11
11	How many times did your child have a respiratory illness, especially respiratory infection, in the last year?					
	1. Less than two times	1	1	1	1	1
	2. Equal to or more than two time	2	2	2	2	2
	3. None	3	3	3	3	3
	Don't Know=11	11	11	11	11	11

12	Do you know the use of antibiotics? Yes=1 No=2	 1 2	 1 2	 1 2	 1 2	 1 2
12a	If yes then, have you ever asked to the doctor to prescribe antibiotics for treating infection? Yes=1 No=2	 1 2	 1 2	 1 2	 1 2	 1 2
13	Is prevention of respiratory infection is possible? Yes= 1 No= 2 Don't Know=11	 1 2 11	 1 2 11	 1 2 11	 1 2 11	 1 2 11
13a	If yes, then how? (Multiple answers allowed) 1. keeping the child warm 2. Consulting a doctor when child is sick 3. By using medicine 4. Acquiring on time treatment 99. Others, please specify_____ _____	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99	 1 2 3 4 99

14	Do you feel any difficulty in treatment of respiratory infection?					
	Yes=1	1	1	1	1	1
	No=2	2	2	2	2	2

14a	If yes, then what kind of difficulties? (Multiple answers allowed)					
	1. HF is far away	1	1	1	1	1
	2. Transportation	2	2	2	2	2
	3. Financial problems	3	3	3	3	3
	4. Social barriers	4	4	4	4	4
	99. Other, please specify_____ _____	99	99	99	99	99

Photographs Clicked during data collection:

1)

A mother and a child in Balmiki colony

2)

A mother with her children who are standing bare feet

3)

4)

Poor sanitation condition in the area

At Shaheed Udham Singh nagar:

5) **6)**

Children Playing with bare feet in unhygeinic condition

6) **7)**

Poor sanitation condition in the area

References:

1. Elizabeth AM, Raj S. Impacts of Biosocial factors on morbidity among children aged under-5 in Orissa. www.iassh.org/web_abs/68.pdf

2. WHO Country Cooperation Strategy 2006-2011. http://www.searo.who.int/LinkFiles/ WHO_Country_Cooperation_Strategy_-_India_Health_Development_Challenges.pdf.

3. Grover Vijay L, Chhabra Pragti, Mallik Sandeep, Kannan AT. Pattern of morbidity and mortality amongst under fives in an urban resettlement colony of East Delhi, Indian J. Preventive and Social Medicine 2004;35(1 & 2):23–6.

4. UNICEF. The State of the World‟s Children. 2009.

5. World Health Organization. World Health report 1999 making a difference. Geneva, WHO, 1999.

6. National Family health Survey – India, 1998-99.

7. Students‟ Handbook for IMNCI. Integrated management of Neonatal and Childhood Illness, Ministry of health & family welfare, Government of India, 2007.

8. Sources: WHO Global Health Observatory (httt://www.who.int/gho/child_health/en/index.html) and „Black R et al. *Lancet,* 2008, 371:243-260 (5, 6))

9. Raddaiah VP and Kapoor SK. Management of Acute Respiratory Infection for controlof mortality in under fives. Indian Journal of Pediatrics, 1993, 60: 283-288.].

10. Patnaik L, Pattnaik S, Kumar V, Sahu T, Morbidity pattern among under 5 children of in an urban slum area of Bhubaneswar City, Odisha)

11. Dey Sushmi , Nov 13, 2014 http://timesofindia.indiatimes.com/india/India-loses-most-kids-to-diarrhoea-pneumonia-Study/articleshow/45129974.cms)

12. Sanjana Gupta , DS Jamwal, Dinesh Kumar, S K Gupta, JK SCIENCE, Morbidity among Under Five Children in a Rural Area of Jammu, Vol. 14 No. 2, April - June 2012, *www.jkscience.org)*

13. *Athumani Juma MD5 2007/08,* Official Publication of the Tanzania Medical Students‟ Association, Knowledge, Attitudes and Practices of mothers on symptoms and signs of integrated management of Childhood Illnesses (IMCI) strategy at Buguruni Reproductive and Child Health clinics in Dar es Salaam.)

14. Bandyopadhyay Dr. Debasis and Ahemed Dr t, A study of knowledge, attitude and practice among mothers towards acute respiratory infection in urban and rural communities of Burdwan district, West Bengal, India, Vol - 1, Issue - 8, June 19 2013.)

15. UNICEF, Ending Preventable Child Deaths from Pneumonia and Diarrhoea by 2025, The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD), 2013.

16. http://whqlibdoc.who.int/hq/2009/WHO_FCH_CAH_NCH_09.04_eng.pdf

17. http://www.childlineindia.org.in/child-health-and-nutrition-india.htm