Abstract

Background

National Quality Assurance Standards for Urban Primary Health Centres have been developed to measure the quality of services at Urban Primary Health Centres. NSSO in 71st Round Report compiled data on out of pocket expenditure (OOPE) on outpatient department (OPD). This study attempts to explore whether there is any correlation between quality of care and OOPE on OPD.

Objective

To analyse the correlation between quality of care and out of pocket health expenditure on OPD in selected states of Bihar, Jharkhand, Orissa and Madhya Pradesh.

Materials and Methods

An analytical study was done on secondary data of four states of MP, Bihar, Orissa and Jharkhand during the months of March-May 2017 .The three UPHCs from each state were selected randomly. The quality score for the state was obtained by taking the average of three UPHCs. The OOPE on OPD was extracted from NSSO 71st Round Report. The Pearson correlation was used to find the correlation utilising IBM SPSS Statistics 22 Package.

Settings and Design

An analytical study was done on secondary data of four states of MP, Bihar, Orissa and Jharkhand provided by NHSRC, New Delhi.

Results

The analysis shows an inverse correlation between the quality of care and OOPE. The quality is strongly negatively related with OOPE with (Pearson correlation value = -.958). This relationship is statistically significant (p value = .042). In other words if the quality of care is improved the out of pocket expenditure reduces and vice versa.

Conclusion

There is very strong negative correlation between quality of care and OOPE for OPD in selected states.

Key Words: Out of pocket expenditure, quality of care and correlation.

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Colonel Anil Yadav**, student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training **at**

NATIONAL HEALTH SYSTEMS RESOURCE CENTER, NEW DELHI from **01 February** to **30 April 2017**.

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.

Dr. A.K. Agarwal
Dean, Academics and Student Affairs
IIHMR, New Delhi

Mentor

IIHMR, New Delhi

The certificate is awarded to

Colonel Anil Yadav

in recognition of having successfully
completed his Internship in the department of

NATIONAL HEALTH SYSTEMS RESOURCE CENTER, NEW DELHI

and has successfully completed his

Project on

Correlation between Quality of Care

and Out Of Pocket Expenditure

Date 10 May 2017

International Institute of Health Management Research, New Delhi

He comes across as a committed, sincere & diligent person who
has a strong drive & zeal for learning

We wish him all the best for future endeavors

Training & Development

Zonal Head-Human Resources

National Health Systems Resource Centre * Mumirka, New Delhi-110067

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,
NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled, **CORRELATION BETWEEN QUALITY OF CARE & OUT OF POCKET EXPENDITURE** and submitted by **Colonel Anil Yadav** Enrollment No. **PG/15/007** under the supervision of **Dr AK AGARWAL** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 01 FEBRUARY to 31APRIL 2017,

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.

Signature

Col Anil Yadav

PG/15/007

FEEDBACK FORM

Name of the Student: Colonel Anil Yadav

Dissertation Organisation: National Health Systems & Resource Center

Area of Dissertation: New Delhi

Attendance: 01 February to 30 April 2017

Objectives achieved: 100%.

Deliverables: Fully

Strengths: Committed, Sincere and Diligent

Suggestions for Improvement:

NIL

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

National Health Systems Resource Centre * Munirka, New Delhi 110067 *

Date: 10 May 2017

Place: New Delhi

Certificate from Dissertation Advisory Committee

This is to certify that **Colonel ANIL YADAV,** a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. He is submitting this dissertation titled " **CORRELATION BETWEEN QUALITY OF CARE & OUT OF POCKET EXPENDITURE"** at "YOUR ORGANIZATION" in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge, no part of it has been reproduced from any other dissertation, monograph, report or book.

Institute Mentor Name, Dr AK Agarwal
Designation, Dean Academics & Student Affairs
Organization IIHMR, New Delhi

Dr J.N. Srivastava
Organization Mentor Name
Designation, Advisor OI
Organization NHSRC

National Health Systems Resource Centre * Munirka, New Delhi-110067 *

CERTIFICATE OF APPROVAL

The following dissertation titled **"CORRELATION BETWEEN QUALITY OF CARE & OUT OF POCKET EXPENDITURE"** at **"YOUR ORGANIZATION** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name	Signature
Prof Ashok K Agarwal	
Dr. Pankaj Talreja	
Dr Shyam Nayajan	

Acknowledgement

This training would not have been completed without a substantial support from a great number of people. Although it is not possible to acknowledge each and every person individually, I would like to thank all those who contributed their time and effort.

At the onset of the report, I would like to acknowledge our sincere thanks to Mr Manoj Jhalani, IAS, JS,Policy,MoHFW and Ms Limatula Yaden, IRS, Director NHM for allowing us the opportunity to complete three months of internship and dissertation in NHSRC.

I also take this opportunity to express my deep sense of gratitude to my Guide and Mentor, Dr J N Srivastava, Advisor -QI, NHSRC, Dr Namit Tomar and Mrs Vinny Arora, Consultant –QI for their helpful attitude, guidance and valuable suggestions in spite of their busy schedule, which not only helped in shaping and completion of this project but also in enriching my knowledge which would act as a milestone for my future days.

I also express my sincere gratitude to my Mentor Dr AK Aggarwal, Dean IIHMR and Ms Kirti Udayai, Assistant Dean, Academics, IIHMR for mentoring and providing us this opportunity to undertake the study.

My sincere acknowledgement goes to Dr BS Singh and Dr Vinay Tripathi, Associate Professors, Dr Vivek Pathak, Research Professor IIHMR for guiding me in data analysis and interpretation.

An honourable mention goes to my family and friends for their understanding and support throughout my summer training.

Thanking You

Table of Contents

List of Figures

List of Tables

List of Abbreviations

1	OPD	Out Patient Department.
2	IIHMR	International Institute of Health Management Research.
3	MOHFW	Ministry of Health and family Welfare.
4	NHSRC	National Health System Resource Centre.
5	MOIC	Medical Officer in Charge.
6	PHC	Primary Health Centre.
7	UPHC	Urban Primary Health Centre
8	OOPE	Out of Pocket Expenditure
9	NSSO	National Sample Survey Organisation
10	NQAS	National quality Assurance Standard
11	QoC	Quality of Care
12	NCD	Non Communicable Disease
13	OOPS	Out of Pocket Spending

List of Appendices

Chapter 1

Introduction

1.1 National Urban Health Mission (NUHM) was launched as a separate mission in years 2013 with objective of improving health status of the urban poor particularly slum dwellers and other marginalised sections. Urban Primary Health Centres (UPHCs) are different from conventional rural PHCs in term of size, functions, focus on ambulatory care, limited staff and infrastructure.

1.2 National Quality Assurance Standards for Urban Primary Health Centres have been developed separately to measure the quality of services at Urban PHCs. These standards offer a standardize process for monitoring and evaluation of quality of services by various stakeholders like Facility staff, district health administration, and certification bodies. National Quality Assurance Standards for UPHCs have 35 Standards under 8 Areas of Concerns with 198 Measurable Elements (ME). The checkpoints of each ME have been arranged into Twelve Checklists.

1.3 The most accepted framework for assessing the quality of care is the 'Donabedian model', which classifies Quality of Care in terms of three components – Structure, Process & Outcome. The assessment process generates scores for the UPHC, departments, and against each Area of Concern. These scores can be used as an objective parameter for assessing status and progress of Quality Assurance at the UPHC, as well as comparing two similar health facilities and inter-Block/ Inter-District/Inter-State comparison and Benchmarking. For the purpose of this study the UPHCs score cards were provided by NHSRC as a secondary data.

1.4 The choice of provider whether public or private and health seeking behaviour is influenced by out of pocket expenditure. Out-of-pocket Expenditure (OOPE) at out-patient departments (OPD) by households is relatively less analyzed compared to hospitalization expenses India. Protecting households from risk of impoverishment due to out-of-pocket costs in health care is a major challenge for health systems. NSSO in 71st Round Report compiled data on OOPE at OPD. The same is utilised as secondary data for the purpose of the study.

1.5 **Aim:** To analyse the correlation between Quality of Care and OOPE at OPD of four states of Bihar, Jharkhand, Orissa and Madhya Pradesh.

1.6 **Objective:** The objective of the study is to analyse whether there is any correlation between quality of care and OOPE at OPD of selected states.

1.7 **Specific Objective:** The specific objectives are to analyse the correlation between each area of concern and OOPE at OPD of selected states.

1.8 **Scope:** The scope of study is limited to analyse if any correlation exists between Quality of Care and OOPE at OPD and not to quantify the correlation. The results obtained are applicable only for group of four selected states.

Chapter 2

Literature Review

2.1 In order to get a detailed insight into the subject of study and to seek more clarity on various aspects of quality of care and out of pocket expenditure, literature review of various NSSO reports, National Quality Assurance Standards (NQAS), Quality Standards for UPHC, Operational guidelines of National Health Mission and study reports published on websites were carried out.

2.2 **Dimensions of Quality of Care:** The most accepted framework for assessing the quality of care is the 'Donabedian model', which classifies Quality of Care in terms of three components – Structure, Process & Outcome. The three aspects of the Quality of Care may have different connotation to different stakeholder's viz. Patients, Service providers and Health System. (1)

2.3 **Measurement System for Urban Health care facilities:** Measurement System for Urban healthcare facilities has been developed within the framework of existing Quality Assurance Programme under the National Health Mission. 'Operational Guidelines for Quality Assurance in Public Health Facilities' provides the 'Road-map' for the implementation. Under the existing Quality Assurance Programme, attributes of Quality of Care (QoC) has been covered under 'Area of Concern', then Quality Standards, Measurable Elements and lastly check-points, which could be collated as departmental or thematic check list.(1)

2.4 **Out of Pocket Expense** are expenses for medical care that aren't reimbursed by insurance. Out of pocket expenses include deductibles, coinsurance, and copayments for

covered services plus all costs for services that aren't covered. For the purpose of the study we are only taking OOPE at OPD (Non Hospitalised) expenditure of four states.

2.5 Out-of-pocket spending at out-patient departments (OPD) by households is relatively less analyzed compared to hospitalization expenses in India.[1] Various studies have already established the correlation of OOPE with choice of service provider and health seeking behaviour.

2.6 The major findings/conclusions from various study reports relevant to present study are discussed and summarised in succeeding paragraphs.

“Economically vulnerable individuals spend more on OPD as a proportion of per capita consumption expenditure. The out-patient care remains overwhelmingly private, with concomitant impact on households, especially the more vulnerable ones. Generally individuals do not switch providers, but when they do, the tilt remains towards private providers, though there seems to be a reverse preference for public providers as well, if treatment by the private provider has been unsatisfactory. Finally, treatment at government facilities or providers does tend to lower OPD significantly indicating that government care is still relatively more affordable compared to private care”.[1]

“Most of the discussion in India in the recent past has centred around the possibility of expanding health protection schemes for hospitalization. It is clear that schemes that do not take into account the fact that OPD is a significant part of an individual’s treatment profile—especially with increasing NCDs that result in chronic conditions requiring frequent visits—would remain ineffective as a tool for alleviating the economic impact of OOPS, especially for the poor”.[1]

“ Other important implication is about public providers: while relatively less preferred vis-à-vis the private, it lowers OOPS holding other parameters constant, as indicated by the regression results. Individuals also do switch from private to public providers

indicating the possibility of using this as a viable argument for offering affordable and quality care through public institutions".[1]

2.7 "As a measure to reduce the out of pocket health spending in our country, the high level expert group on Universal Health Coverage recommends a National Health Package free of cost to all. Whether availability of services free of cost, will reduce out of pocket expenditure?"[2]

"Public health care facilities were preferred (75.5%) for seeking care. Availability of services free of cost reduces out of pocket expenditure among non-hospitalized cases.[2] Study shows that the out of pocket expenditure for non-hospitalized cases are much lower in a region where abundant free health services are available."[2]

2.8 Lack of money is the most important cause of un-seeking care. Hospitalizations due to inpatient care needs, household members aged 40-59 years old, especially with chronic diseases and non rich status of the household were the highest predictors of facing catastrophic costs. Reducing out-of-pocket costs can increase health care utilization.[3]

2.9 In general we can observe a relationship between the dominance of public facilities in outpatient and inpatient services. Countries with high utilization of public facilities for outpatient services show similar patterns for inpatient services.[4]

2.10 A study was conducted to estimate the out-of-pocket expenditures for outpatient imaging services in Imam-Khomeini Hospital in Tehran.

"Average payment for males was greater than the average payment for females. It was suggested that expensive diagnostic tests, such as CT-scans, be prescribed according to the actual needs of patients to make the financial burden of diagnostic services reasonable for all patients."[5]

"Public providers were the single most important providers of care. The total expenditure was higher for those receiving care in private facilities compared to public ones and the insured patients' bill almost tripled uninsured ($p < 0.001$). Finally, medication was the most expensive component of expenditure in both public and private facilities." [6]

Key Research Question

2.11 Is there any correlation between quality of care and out of pocket expenditure?

Objective

2.12 To analyse whether there is any correlation between quality of care and out of pocket expenditure in OPD of selected states.

Specific Objectives

2.13 To analyse whether there is any correlation between each areas of concern and out of pocket expenditure in OPD of selected states.

Scope

2.14 The scope of study is to analyse if any correlation exists between quality of care and OOPE but not to quantify it .Results are applicable for four selected states only.

Chapter 3

Methodology

3.1 **Materials and Methods:** An analysis was done on secondary data of four states of MP, Bihar, Orissa and Jharkhand during the months of Feb-Apr 2017 .The three UPHCs from each state were selected randomly. The quality score for the state was obtained by taking the average of three UPHCs. The OOPE on OPD was extracted from NSSO 71st Round Report. MS Excel was used to depict the data in table and graphically to discern and interpret the correlation between quality of care and OOPE. The Pearson correlation was used to find the strength of correlation utilising IBM SPSS Statistics 22 Package.

3.2 **Study Settings:** **S**tudy was conducted on secondary data of four states of MP, Bihar, Orissa and Jharkhand provided by NHSRC, New Delhi.

3.3 **Study Design:** Analytical study.

3.4 **Study Area:** Bihar, Jharkhand, Orissa and Madhya Pradesh.

3.5 **Study Period:** 01 Feb 2017 to 30 Apr 2017.

3.6 **Data Collection:** Data was collected from NHSRC, New Delhi from 25Apr 2017 to 26 Apr 2017.

3.7 **Data Analysis**: The data was analyzed using the Microsoft Excel 2007 and IBM SPSS Statistics 22 Package.

3.8 **Comprehensiveness and Accuracy of Data:** The study was done on secondary data. Limited data was made available for the purpose of study and learning the research methodology. The accuracy and comprehensiveness of data cannot be questioned. The UPHCs score cards were taken from the Assessment Report of UPHCs and out of pocket expenditure was extracted from report of NSS 71st Round. Due to limited availability of secondary data certain tools of SPSS could not be applied effectively.

3.9 **Tools of data collection:** UPHC Score cards and OOPE from NSS Report.

Chapter 4

Data Compilation and Sorting

4.1 The state wise OOPE for both Urban and Rural are tabulated in Table 4.1. In this case we have considered the Urban OOPE as the score cards were available only for UPHCs.

Table 4.1-Statewise OOPE

Ser NO	State	Rural	Urban
1	Bihar	52783	**19340**
2	MP	14801	**7040**
3	Jharkhand	3831	**19297**
4	Orissa	15618	**12927**

Source of data: NSSO Report 71st Round

4.2 Three UPHCs were randomly considered from each state. The list of selected UPHCs is tabulated below:-

Table 4.2 State Wise UPHCs Selected				
Ser No	**State**	**UPHC-1**	**UPHC-2**	**UPHC-3**
1	Bihar	Gardani Bagh(Patna)	Sunder Garh(Nalanda)	Ramsagar(Gaya)
2	MP	Anand Nagar(Bhopal)	Bhawarkua(Indore)	Govindpura(Bhopal)
3	Jharkhand	Bada Gagara(Ranchi)	Gagannathpur(Ranchi)	Mango(Jamshedpur)
4	Orissa	Jatani(Khordha)	Cuttack	Balasore

4.3 To study the correlation between quality of service and OOPE, the state wise average quality score was calculated from score cards of three UPHCs from each state.

Table 4.3-Statewise Average Quality Score					
Ser No	State	UPHC-1	UPHC-2	UPHC-3	**Avg Score**
1	Bihar	32.7	25.4	11.6	**23.23**
2	MP	56.2	34.3	51.6	**47.37**
3	Jharkhand	25.1	22.9	34.4	**27.47**
4	Orissa	37.68	28.85	28.62	**31.72**

4.4 To study the correlation between various areas of concern (8) and OOPE, the state wise average score for each area of concern was calculated.

Table 4.4 Statewise Quality Score								
State	**Ser Pvn**	**Pt Rt**	**Input**	**Sp Ser**	**Clinical**	**Inf cont**	**Qlty Mgt**	**Outcome**
Bihar								
UPHC1	54.1	40	40.5	27.9	49.5	6.4	1.6	3.3
UPHC2	32	35	33.1	29.5	33.9	5.1	0	6.7
UPHC3	14.6	23.8	14.9	10.7	15	0	2.4	2.2
Avg	**33.57**	**32.93**	**29.50**	**22.70**	**32.80**	**3.83**	**1.33**	**4.07**
MP								
UPHC1	79.1	53.5	57.5	66.4	73.4	53.8	7.3	0
UPHC2	38.6	46.9	43.3	41.8	33.7	39.7	2.4	0
UPHC3	78.2	51.5	45.4	57.2	70.4	55.4	3.3	0
Avg	**65.30**	**50.63**	**48.73**	**55.13**	**59.17**	**49.63**	**4.33**	**0.00**
Jharkhand								
UPHC1	28.5	25.8	32.7	25.3	31.9	16.7	8.9	8.9
UPHC2	33.9	30	31.9	15.5	30	8.7	4.9	10.6
UPHC3	49.4	50	44.2	26	39.3	31.7	3.3	8.4
Avg	**37.27**	**35.27**	**36.27**	**22.27**	**33.73**	**19.03**	**5.70**	**9.30**
Orissa								
UPHC1	62.74	46.92	51.39	52.14	54.9	34.38	2.5	0
UPHC2	48.56	45.26	43.02	35.29	41.35	18.41	0	0
UPHC3	51.48	48.25	42.81	33.73	37.24	15.08	0	0
Avg	**54.26**	**46.81**	**45.74**	**40.39**	**44.50**	**22.62**	**0.83**	**0.00**

Chapter 5

Graphical Representation and Data Analysis

5.1 To study the correlation between Quality Score and OOPE, the state wise OOPE and Quality Score are tabulated and graphically represented for ease of interpretation and analysis.

Table 5.1 Statewise OOPE Vs Quality Score		
State	**OOPE**	**Quality Score**
Bihar	19340	23.23
MP	7040	47.37
Jharkhand	19297	27.47
Orissa	12927	31.72

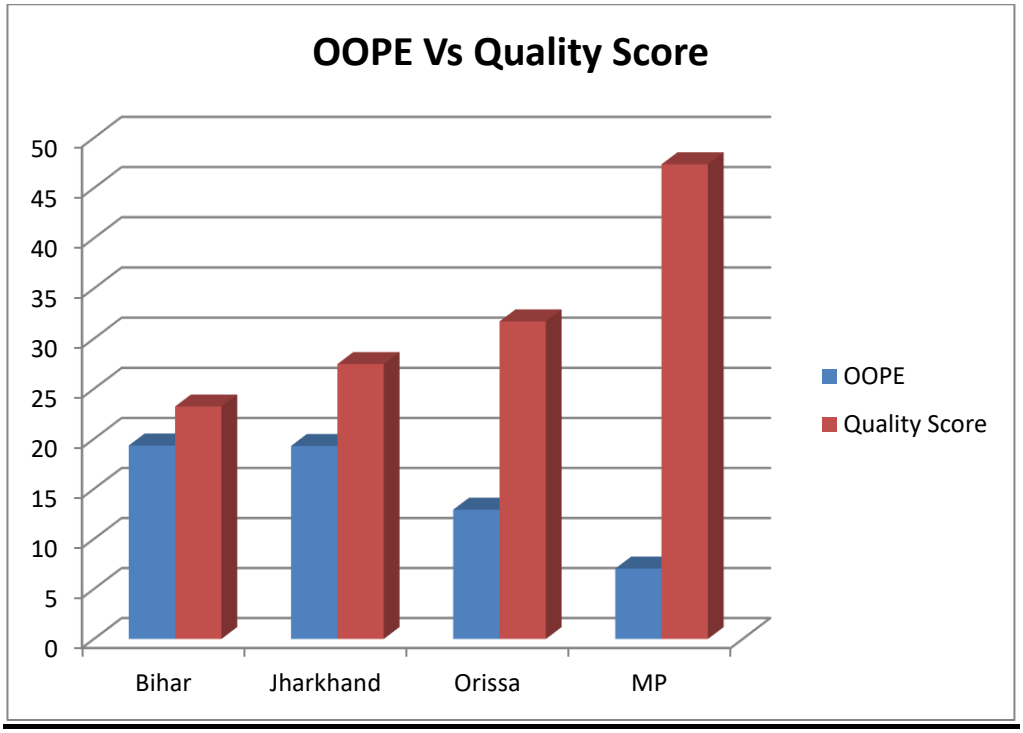

Figure 5.1

Interpretation **As the quality of service increases the OOPE decreases.**

5.2 The state wise OOPE are tabulated in ascending order for better graphical representation and ease of interpretation.

Table 5.2 Statewise OOPE Vs Quality Score		
State	**OOPE**	**Quality Score**
MP	7.04	47.37
Orissa	12.927	31.72
Jharkhand	19.297	27.47
Bihar	19.34	23.23

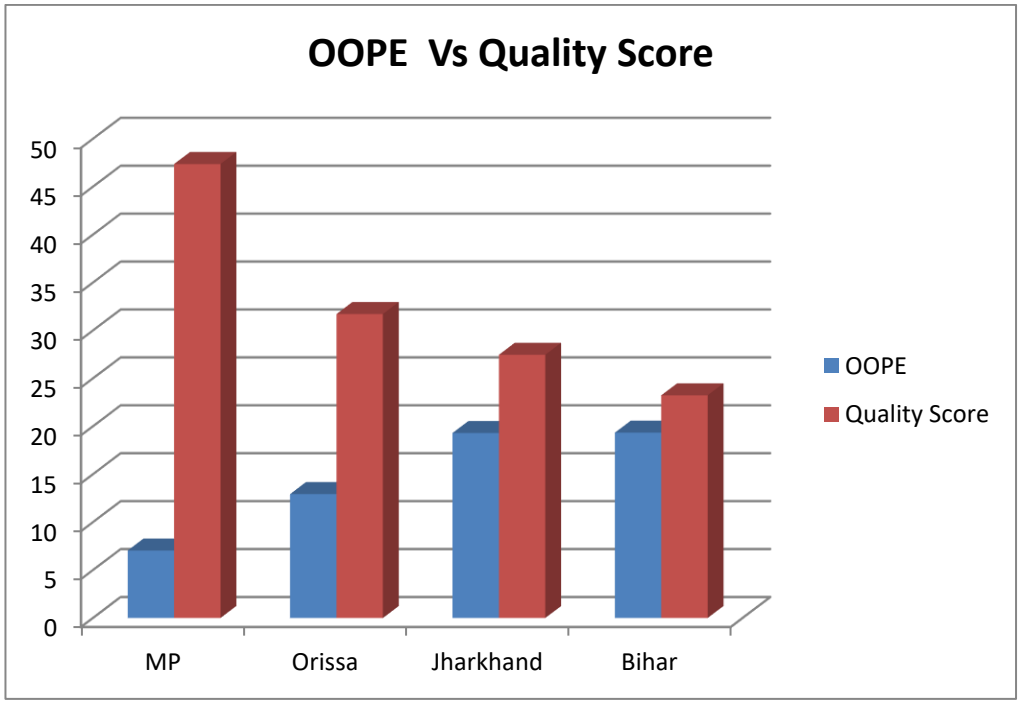

Figure 5.2

Interpretation:- **As the Quality of Service decreases the OOPE increases.**

5.3 To study the correlation between various Areas of Concern (8) and OOPE, both variables were tabulated and graphically represented for ease of interpretation and analysis.

Table 5.3 Statewise OOPE Vs Service Provision		
State	OOPE	Service Provn
MP	7.04	65.3
Orissa	12.93	54.26
Jharkhand	19.30	37.27
Bihar	19.34	33.57

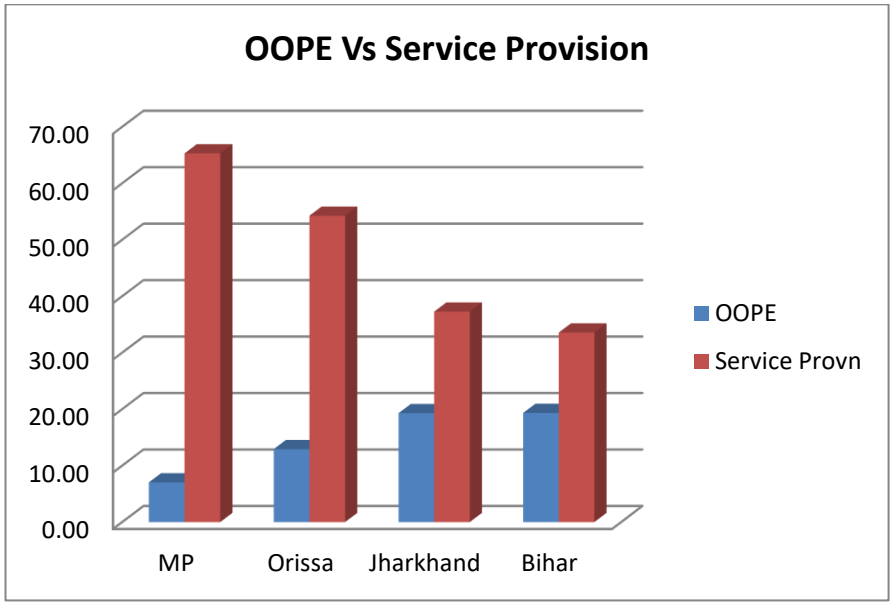

Figure 5.3

<u>Interpretation</u> **As the Service Provision decreases the OOPE increases.**

Table 5.4 Statewise OOPE Vs Patient Right		
State	OOPE	Patient Right
MP	7.04	50.63
Orissa	12.93	46.81
Jharkhand	19.30	35.27
Bihar	19.34	32.93

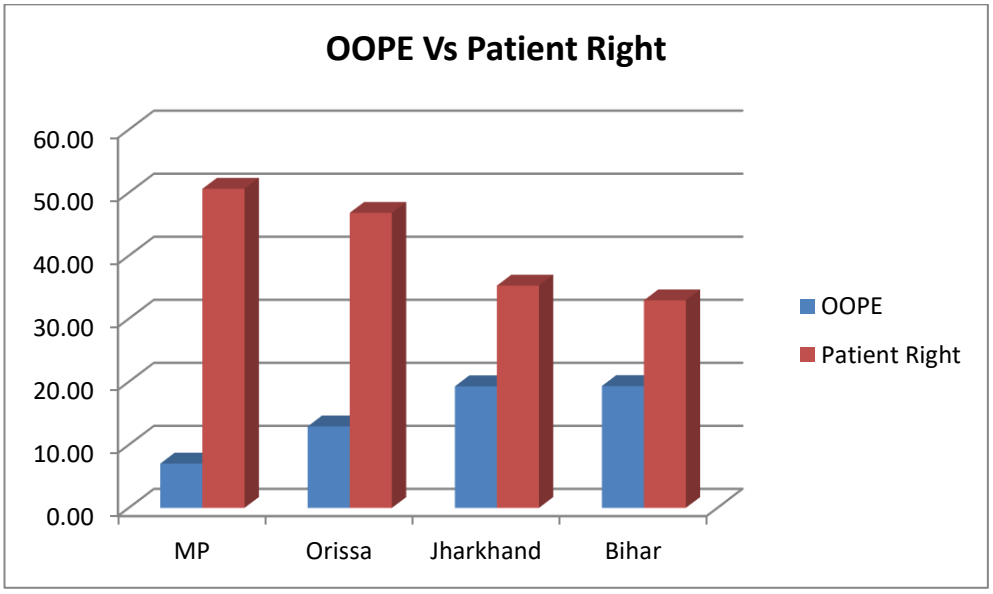

Figure 5.4

Interpretation **As the Patient Right decreases the OOPE increases.**

Table 5.5 Statewise OOPE Vs Input		
State	OOPE	Input
MP	7.04	48.73
Orissa	12.93	45.74
Jharkhand	19.30	36.27

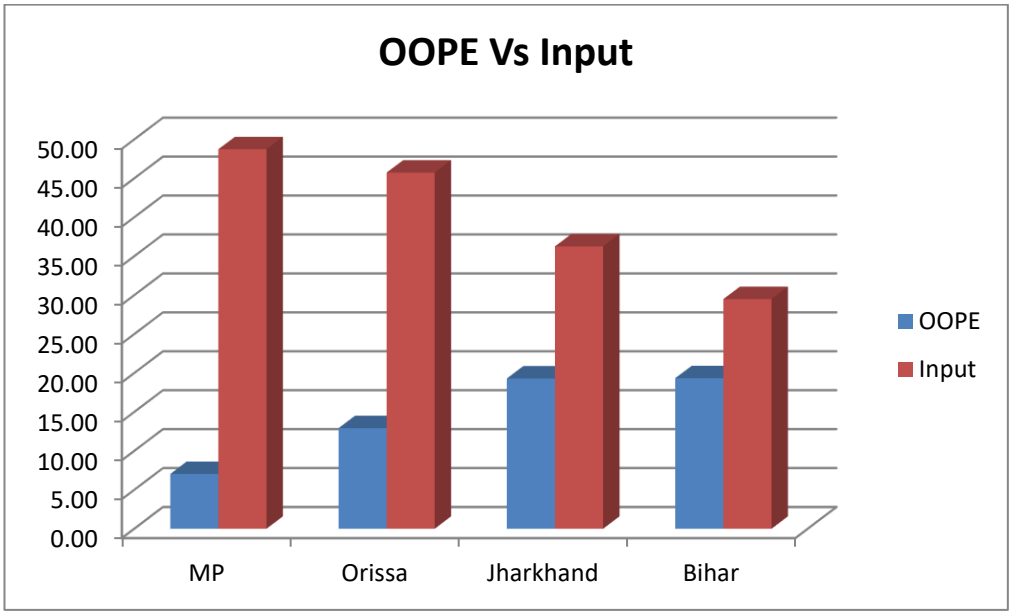

Figure 5.5

Interpretation **As the Input decreases the OOPE increases.**

Table 5.6 Statewise OOPE Vs Support Service		
State	OOPE	Sp Service
MP	7.04	55.13
Orissa	12.93	40.38
Jharkhand	19.30	22.27
Bihar	19.34	22.7

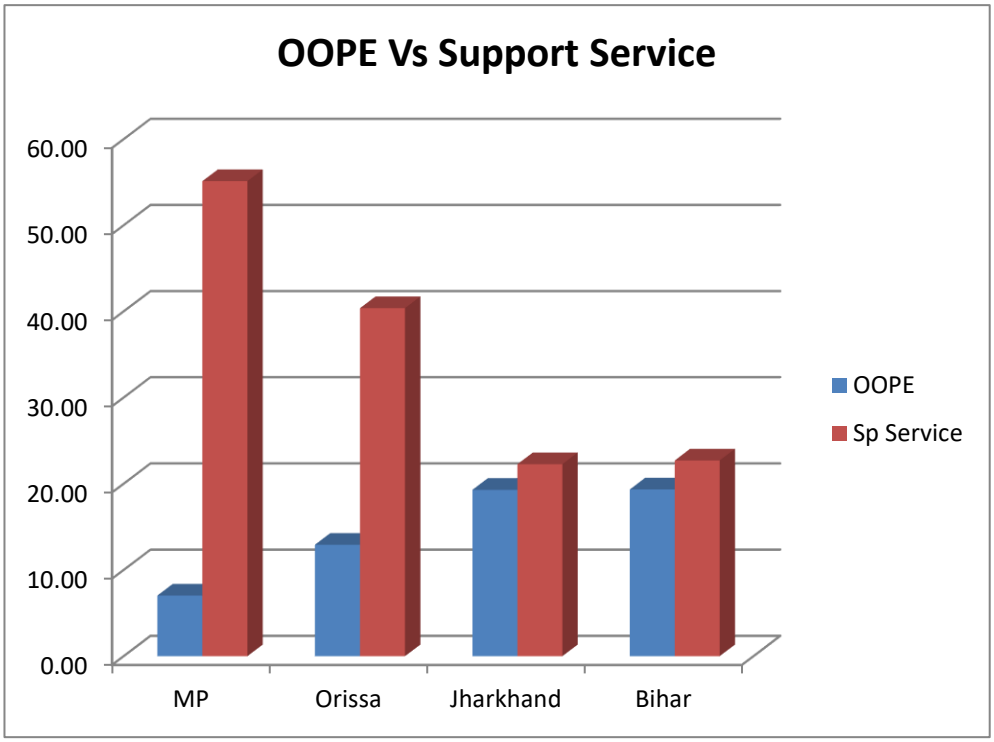

Figure 5.6

<u>Interpretation</u>: As the Support Services Provision decreases the OOPE increases.

Table 5.7 Statewise OOPE Vs Clinical Service		
State	OOPE	Clinical Service
MP	7.04	59.17
Orissa	12.93	44.5
Jharkhand	19.30	33.73
Bihar	19.34	32.8

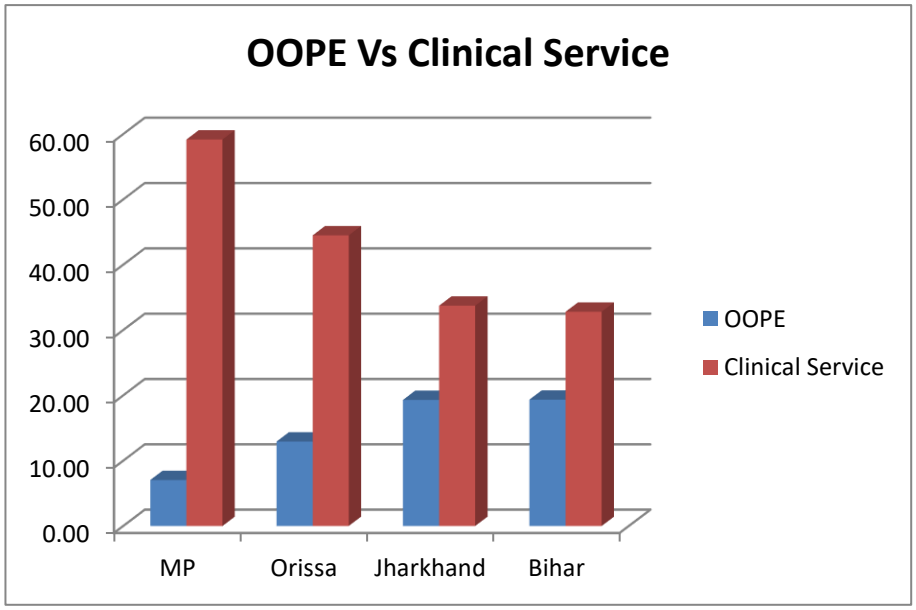

Figure 5.7

<u>Interpretation:</u> As the Clinical Service Provision decreases the OOPE increases.

Table 5.8 Statewise OOPE Vs Infection Control		
State	OOPE	Infection Control
MP	7.04	49.63
Orissa	12.93	22.62
Jharkhand	19.30	19.03
Bihar	19.34	3.83

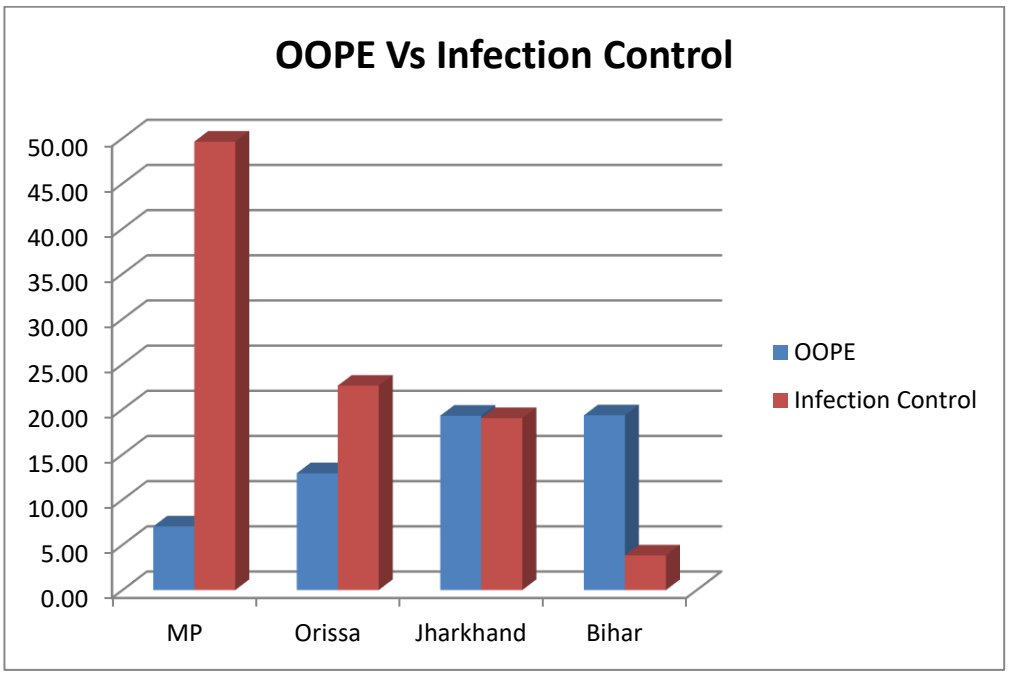

Figure 5.8

<u>Interpretation:</u> **As the provision for Infection Control decreases the OOPE increases.**

Table 5.9 Statewise OOPE Vs Quality Management		
State	OOPE	Quality Mgt
MP	7.04	4.33
Orissa	12.93	0.83
Jharkhand	19.30	5.7
Bihar	19.34	1.33

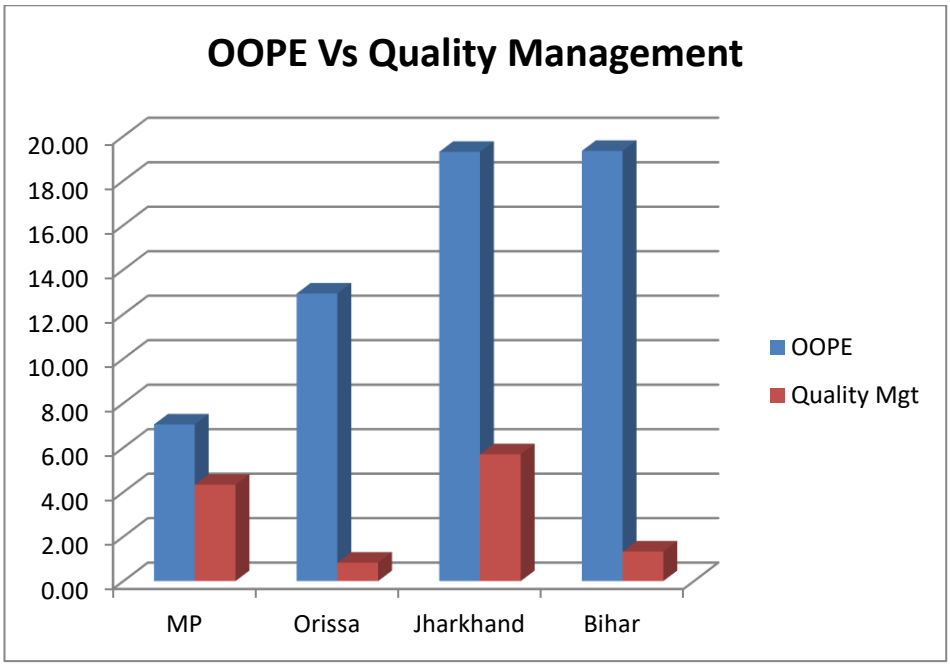

Figure 5.9

<u>Interpretation</u> **Pattern is not conclusive due to lack of data.**

Table 5.10 Statewise OOPE Vs Outcome		
State	OOPE	Outcome
MP	7.04	0
Orissa	12.93	0
Jharkhand	19.30	9.3
Bihar	19.34	4.06

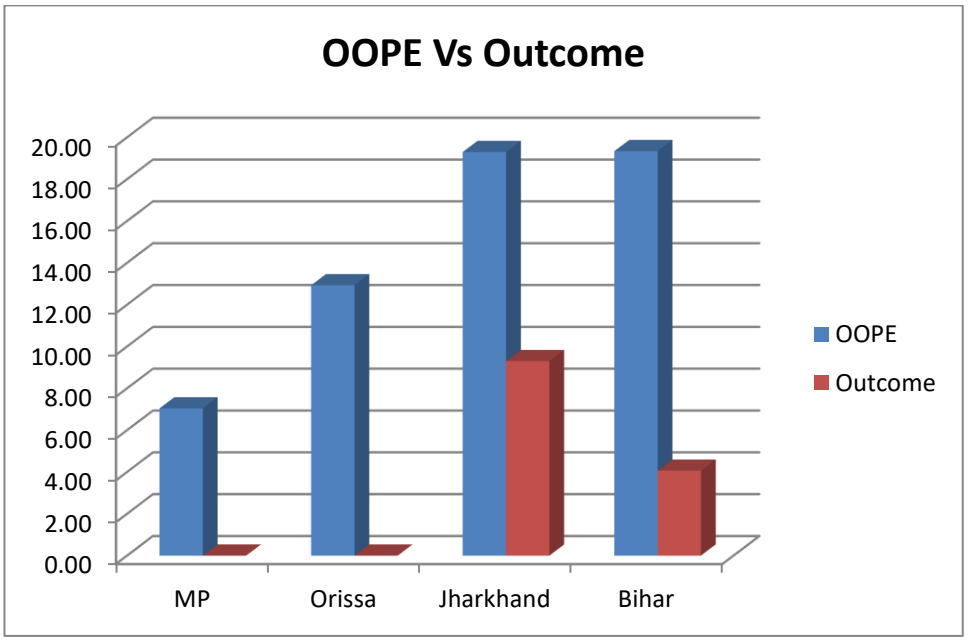

Figure 5.10

<u>Interpretation</u> Pattern is not conclusive due to lack of data.

Chapter 6

Pearson Correlations

Table 6.1 Correlations Quality Score Vs OOPE

		OOPE	Quality
OOPE	Pearson Correlation	1	-.958*
	Sig. (2-tailed)		.042
	N	4	4
Quality	Pearson Correlation	-.958*	1
	Sig. (2-tailed)	.042	
	N	4	4

*. Correlation is significant at the 0.05 level (2-tailed).

6.1 A co-relation analysis was performed on two variables (independent variable: quality and dependent variable: OOPE). The analysis shows an inverse correlation between the quality and OOPE. The Pearson coefficient is -.958 for this data. In our case, the quality is strongly negatively related with OOPE with (p value = .042, Pearson correlation value =.958). This relationship is statistically significant (p value = .042).

Table 6.2 Correlations Service Provision Vs OOPE

		OOPE	Service_Provn
OOPE	Pearson Correlation	1	-.989*
	Sig. (2-tailed)		.011
	N	4	4
Service_Provn	Pearson Correlation	-.989*	1
	Sig. (2-tailed)	.011	
	N	4	4

*. Correlation is significant at the 0.05 level (2-tailed).

6.2 A co-relation analysis was performed on two variables (Independent variable: Service provision and dependent variable: OOPE). The analysis shows an inverse correlation between the service provision and OOPE. The Pearson coefficient is -.989 for this data. In our case, the service provision is strongly negatively related with OOPE with (p value = .011, Pearson correlation value =.989). This relationship is statistically significant (p value = .011).

Table 6.3 Correlations Patient Right Vs OOPE

		OOPE	Patient_Right
OOPE	Pearson Correlation	1	-.966*
	Sig. (2-tailed)		.034
	N	4	4
Patient_Right	Pearson Correlation	-.966*	1
	Sig. (2-tailed)	.034	
	N	4	4

*. Correlation is significant at the 0.05 level (2-tailed).

6.3 A co-relation analysis was performed on two variables (Independent variable: Patient right and dependent variable: OOPE). The analysis shows an inverse correlation between the patient right and OOPE. The Pearson coefficient is -.966 for this data. In our case, the patient right is strongly negatively related with OOPE with (p value = .034, Pearson Correlation value =.966). This relationship is statistically significant (p value = .034).

Table 6.4 Correlations Input Vs OOPE

		OOPE	Input
OOPE	Pearson Correlation	1	-.915
	Sig. (2-tailed)		.085
	N	4	4
Input	Pearson Correlation	-.915	1
	Sig. (2-tailed)	.085	
	N	4	4

6.4 A co-relation analysis was performed on two variables (Independent variable: Input and dependent variable: OOPE). The analysis shows an inverse correlation between the input and OOPE. The Pearson coefficient is -.915 for this data. In our case, the input is strongly negatively related with OOPE with (p value = .085, Pearson correlation value =.915). This relationship is not statistically significant (p value = .085).

Table 6.5 Correlations Support Service Vs OOPE

		OOPE	Support_Serv
OOPE	Pearson Correlation	1	-1.000**
	Sig. (2-tailed)		.000
	N	4	4
Support_Serv	Pearson Correlation	-1.000**	1
	Sig. (2-tailed)	.000	
	N	4	4

**. Correlation is significant at the 0.01 level (2-tailed).

6.5 A co-relation analysis was performed on two variables (independent variable: Support service and dependent variable: OOPE). The analysis shows an inverse correlation between the support service and OOPE. The Pearson coefficient is -1.0 for this data. In our case, the quality is strongly negatively related with OOPE with (p value = .000, Pearson correlation value =1.0). This relationship is statistically significant (p value = .000).

Table 6.6 Correlations Clinical Service Vs OOPE

		OOPE	Clinical_Serv
OOPE	Pearson Correlation	1	-.996**
	Sig. (2-tailed)		.004
	N	4	4
Clinical_Serv	Pearson Correlation	-.996**	1
	Sig. (2-tailed)	.004	
	N	4	4

**. Correlation is significant at the 0.01 level (2-tailed).

6.6 A co-relation analysis was performed on two variables (independent variable: Clinical service and dependent variable: OOPE). The analysis shows an inverse correlation between the clinical service and OOPE. The Pearson coefficient is -.996 for this data. In our case, the clinical service is strongly negatively related with OOPE with (p value = .004, Pearson correlation value =.996). This relationship is statistically significant (p value = .004).

Table 6.7 Correlations Infection Control Vs OOPE

		OOPE	Infection_Cont
OOPE	Pearson Correlation	1	-.920
	Sig. (2-tailed)		.080
	N	4	4
Infection_Cont	Pearson Correlation	-.920	1
	Sig. (2-tailed)	.080	
	N	4	4

6.7 A co-relation analysis was performed on two variables (independent variable: Infection control and dependent variable: OOPE). The analysis shows an inverse correlation between the infection control and OOPE. The Pearson coefficient is -.920 for this data. In our case, the infection control is strongly negatively related with OOPE with (p value = .080, Pearson correlation value =.920). This relationship is statistically not significant (p value = .080).

Table 6.8 Correlations Quality Management Vs OOPE

		OOPE	Quality_Mgt
OOPE	Pearson Correlation	1	-.040
	Sig. (2-tailed)		.960
	N	4	4
Quality_Mgt	Pearson Correlation	-.040	1
	Sig. (2-tailed)	.960	
	N	4	4

6.8 A co-relation analysis was performed on two variables (independent variable: quality management and dependent variable: OOPE). The analysis shows an inverse correlation between the quality management and OOPE. The Pearson coefficient is -.040 for this data. In our case, the quality management is marginally negatively related with OOPE with (p value = .960, Pearson correlation value = -.040). This relationship is statistically not significant (p value = .960).

Table 6.9 Correlations Outcome Vs OOPE

		OOPE	Outcome
OOPE	Pearson Correlation	1	.797
	Sig. (2-tailed)		.203
	N	4	4
Outcome	Pearson Correlation	.797	1
	Sig. (2-tailed)	.203	
	N	4	4

6.9 A co-relation analysis was performed on two variables (independent variable: outcome and dependent variable: OOPE). The analysis shows a positive correlation between the outcome and OOPE. The Pearson coefficient is -.797 for this data. In our case, the outcome is strongly positively related with OOPE with (p value = .203 Pearson correlation value =.797). This relationship is statistically not significant (p value = .203).

Chapter 7

Discussion

7.1 The data was depicted and analysed graphically. The graphical interpretations are summarised below:-

(a) In states where quality of care is better, the OOPE is lesser and vice versa (Figure 5.1 & 5.2).

(b) In states where service provision is higher, the OOPE is lesser and vice versa (Figure 5.3).

(c) In states where patient rights score is higher, the OOPE is lesser and vice versa (Figure 5.4).

(d) In states where provision of input is better, the OOPE is lesser and vice versa (Figure 5.5).

(e) The states which have better support services for its OPD services, the OOPE is lower and vice versa (Figure 5.6).

(f) The states which provide better clinical services for its OPD patients, the OOPE is lower and vice versa (Figure 5.7).

(g) The states which have better infection control measures in its for its health centres, the OOPE is lower and vice versa (Figure 5.8).

(h) The correlation between quality management and OOPE is not conclusive (Figure 5.9).

(j) The relationship between Outcome of services and OOPE not conclusive (Figure 5.10).

7.2 To determine the correlation between quality variables and OOPE the Pearson correlation analysis using IBM SPSS Statistics 22 Package was carried out. The findings of Pearson correlations are summarised below:-

(a) The quality is strongly negatively related with OOPE with (Pearson correlation value = -.958) and relationship is statistically significant (p value = .042).

(b) The service provision is strongly negatively related with OOPE with (Pearson correlation value = -.989) and relationship is statistically significant (p value = .011).

(c) The patient right is strongly negatively related with OOPE with (Pearson correlation value = -.966) and relationship is statistically significant (p value = .034).

(d) The input is strongly negatively related with OOPE with (Pearson correlation value = -.915) and relationship is statistically not significant (p value = .085).

(e) The support service is strongly negatively related with OOPE with (Pearson correlation value = -1.0) and this relationship is statistically significant. (p value = 0.0).

(f) The clinical service is strongly negatively related with OOPE with (Pearson correlation value = -.996) and the relationship is statistically significant (p value = .004).

(g) The infection control is strongly negatively related with OOPE with (Pearson correlation value = -.920) and the relationship is statistically not significant (p value = .08).

(h) The quality management is marginally weakly related with OOPE with (Pearson correlation value = -.040) and this relationship is statistically not significant (p value = .960).

(j) The outcome is strongly positively related with OOPE with (Pearson correlation value =.797) and the relationship is statistically not significant (p value = .203).

Conclusion

7.3 The analysis shows an inverse correlation between the quality and OOPE. The quality is strongly negatively related with OOPE with (Pearson correlation value = -.958) and the relationship is statistically significant (p value = .042) in selected urban areas of Bihar, Jharkhand, Orissa and Madhya Pradesh.

Chapter 8

Conclusion

Summary of Findings				
Variable	**Pattern with OOPE**	**Pearson Coeff**	**P value**	**Significance**
Quality Score	QoS ↑ OOPE ↓	-0.958	0.042	Significant
Service Provn	Service Provn ↑ OOPE ↓	-0.989	0.011	Significant
Patient Right	Patient Rt ↑ OOPE ↓	-0.966	0.034	Significant
Input	Input ↑ OOPE ↓	-0.915	0.085	Not Significant
Sp services	Sp Service ↑ OOPE ↓	-1	0	Significant
Clinical Servic	Clinical Service ↑ OOPE ↓	-0.996	0.004	Significant
Infection Cont	Infection Contl ↑ OOPE	-0.92	0.08	Not Significant
Quality Mgt	Mixed Pattern	-0.04	0.96	Not Significant
Outcome	No Set Pattern	0.797	0.203	Not Significant

8.1 The graphical analysis shows that there is a definite correlation between quality of care and OOPE. In states where quality of care is better the OOPE reduces and vice versa.

8.2 The Pearson correlation analysis shows an inverse correlation between the quality of care and OOPE. The quality of care is strongly negatively related with OOPE with (Pearson correlation value = -.958) and the relationship is statistically significant (p value = .042) in selected urban areas of Bihar, Jharkhand, Orissa and Madhya Pradesh.
. In other words if the quality of care is improved, the out of pocket expenditure reduces and vice versa.

Recommendations

8.3 Quality of care in UPHCs should be improved to reduce the out of pocket expenditure at OPD service.

8.4 A detailed study to be conducted with larger sample size to include more number of UPHCs and more number of states for better representation and statistical analysis.

8.5 Correlation analysis should be carried out periodically at state level to undertake timely corrective action.

8.6 OOPE of dependent population to be compiled at UPHC level for better validity and reliability of data and applicability of results.

Chapter 9

Limitations of the study

The study has following limitations:-

9.1 Study is based on limited secondary data made available by NHSRC.

9.2 Data of four states was in the aggregated form. Hence some results are statistically not significant.

9.3 The score cards of three UPHCs per state were considered. Therefore, the study may not necessarily represent the entire state.

9.4 The figures of OOPE and UPHC scorecards have been taken merely for the purpose of learning research methodology.

Appendix A

Bihar

Table1: Indicators on Utilization and Out of Pocket Expenditures (OOPE) on Healthcare: 2014(in current prices)

Indicators	Bihar		All India	
Utilization Indicators	**Rural**	**Urban**	**Rural**	**Urban**
Proportion (per thousand) of ailing persons	57	62	89	118
% of non-hospitalized cases using public facility	10	8	25	20
% of non-hospitalized cases using private facility	60	54	64	73
% of non-hospitalized cases using Informal care (friends/relatives/medicine shops/others)	30	38	11	8
Proportion (per thousand) of hospitalized persons	34	33	44	49
% of hospitalized cases using public facility	43	39	42	32
% of hospitalized cases using private facility	57	61	58	68
Out of Pocket Expenditures on Healthcare (OOPE)				
Hospitalization Expenditure (excluding child birth) (In Rs.)				
OOPE per hospitalized case(Rs)-All	11182	23647	14473	21985
OOPE per hospitalized case(Rs)-Public	5745	9959	5369	7189
OOPE per hospitalized case(Rs)-Private	15220	32319	21034	28958
Child Birth Expenditure (as inpatient) (In Rs.)				
OOPE per child birth-(Rs)All	5452	6268	5518	11033
OOPE per child birth(Rs)– Public	2193	2584	1572	2094
OOPE per child birth(Rs)– Private	16322	13795	14727	19107
Non-hospitalized expenditure (In Rs.)				
OOPE per non-hospitalized ailing person(Rs) – Public	52783	19340	9840	9620
OOPE per non-hospitalized ailing person(Rs) – Private	22562	23025	15804	18919
OOPE on antenatal care(ANC) per pregnant woman(Rs)-Public	1660	1378	1388	1859
OOPE on ANC per pregnant woman(Rs)-Private	4905	3401	4791	5727
% of diagnostics expenditure as a proportion of outpatient medical expenditure	11%	16%	11%	12%
% of drugs expenditure as a proportion of outpatient medical expenditure	74%	66%	73%	68%
% of drugs expenditure as a proportion of outpatient medical expenditure-Public	89%	90%	76%	67%

*OOPE is net of reimbursements

Madhya Pradesh

Table1: Indicators on Out of Pocket Expenditures on Healthcare (OOPE): 2014 (in current prices)

Indicators	Madhya Pradesh		All India	
Utilization Indicators	**Rural**	**Urban**	**Rural**	**Urban**
Proportion (per thousand) of ailing persons	53	71	89	118
% of non-hospitalized cases using public facility	27	23	25	20
% of non-hospitalized cases using private facility	65	71	64	73
% of non-hospitalized cases using Informal care (friends/relatives/medicine shops/others)	8	6	11	8
Proportion (per thousand) of hospitalized persons	40	44	44	49
% of hospitalized cases using public facility	54	42	42	32
% of hospitalized cases using private facility	47	58	58	68
Out of Pocket Expenditures on Healthcare (OOPE)				
Hospitalization Expenditure (excluding child birth) (In Rs.)				
OOPE per hospitalized case(Rs)-All	10467	23728	14473	21985
OOPE per hospitalized case(Rs)-Public	3282	13981	5369	7189
OOPE per hospitalized case(Rs)-Private	18742	30687	21034	28958
Child Birth Expenditure (as inpatient) (In Rs.)				
OOPE per child birth-(Rs)All	2173	6007	5518	11033
OOPE per child birth(Rs)– Public	870	672	1572	2094
OOPE per child birth(Rs)– Private	13818	16226	14727	19107
Non-hospitalized expenditure (In Rs.)				
OOPE per non-hospitalized ailing person(Rs) – Public	14801	7040	9840	9620
OOPE per non-hospitalized ailing person(Rs) – Private	19052	21879	15804	18919
OOPE on antenatal care(ANC) per pregnant woman(Rs)-Public	756	1065	1388	1859
OOPE on ANC per pregnant woman(Rs)-Private	3715	5982	4791	5727
% of diagnostics expenditure as a proportion of outpatient medical expenditure	11%	11%	11%	12%
% of drugs expenditure as a proportion of outpatient medical expenditure	69%	72%	73%	68%
% of drugs expenditure as a proportion of outpatient medical expenditure-Public	60%	84%	76%	67%

*OOPE are net of reimbursements

Orissa

Table1: Indicators on Utilization and Out of Pocket Expenditures (OOPE) on Healthcare: 2014(in current prices)

Indicators	Odisha		All India	
Utilization Indicators	**Rural**	**Urban**	**Rural**	**Urban**
Proportion (per thousand) of ailing persons	103	97	89	118
% of non-hospitalized cases using public facility	66	46	25	20
% of non-hospitalized cases using private facility	21	38	64	73
% of non-hospitalized cases using Informal care (friends/relatives/medicine shops/others)	13	16	11	8
Proportion (per thousand) of hospitalized persons	45	51	44	49
% of hospitalized cases using public facility	81	58	42	32
% of hospitalized cases using private facility	19	42	58	68
Out of Pocket Expenditures on Healthcare (OOPE)				
Hospitalization Expenditure (excluding child birth) (In Rs.)				
OOPE per hospitalized case(Rs)-All	10130	18404	14473	21985
OOPE per hospitalized case(Rs)-Public	5758	6990	5369	7189
OOPE per hospitalized case(Rs)-Private	29163	34146	21034	28958
Child Birth Expenditure (as inpatient) (In Rs.)				
OOPE per child birth-(Rs)All	3832	7202	5518	11033
OOPE per child birth(Rs)– Public	2531	2973	1572	2094
OOPE per child birth(Rs)– Private	16569	18391	14727	19107
Non-hospitalized expenditure (In Rs.)				
OOPE per non-hospitalized ailing person(Rs) – Public	15618	12927	9840	9620
OOPE per non-hospitalized ailing person(Rs) – Private	15981	28877	15804	18919
OOPE on antenatal care(ANC) per pregnant woman(Rs)-Public	1982	2024	1388	1859
OOPE on ANC per pregnant woman(Rs)-Private	5422	6386	4791	5727
% of diagnostics expenditure as a proportion of outpatient medical expenditure	14%	11%	11%	12%
% of drugs expenditure as a proportion of outpatient medical expenditure	76%	80%	73%	68%
% of drugs expenditure as a proportion of outpatient medical expenditure-Public	75%	80%	76%	67%

*OOPE is net of reimbursements

Jharkhand

Table1: Indicators on Utilization and Out of Pocket Expenditures (OOPE) on Healthcare: 2014(in current prices)

Indicators	Jharkhand		All India	
Utilization Indicators	**Rural**	**Urban**	**Rural**	**Urban**
Proportion (per thousand) of ailing persons	52	96	89	118
% of non-hospitalized cases using public facility	21	13	25	20
% of non-hospitalized cases using private facility	43	73	64	73
% of non-hospitalized cases using Informal care (friends/relatives/medicine shops/others)	36	14	11	8
Proportion (per thousand) of hospitalized persons	32	35	44	49
% of hospitalized cases using public facility	40	26	42	32
% of hospitalized cases using private facility	60	74	58	68
Out of Pocket Expenditures on Healthcare (OOPE)				
Hospitalization Expenditure (excluding child birth) (In Rs.)				
OOPE per hospitalized case(Rs)-All	10346	12579	14473	21985
OOPE per hospitalized case(Rs)-Public	4327	9494	5369	7189
OOPE per hospitalized case(Rs)-Private	14288	13684	21034	28958
Child Birth Expenditure (as inpatient) (In Rs.)				
OOPE per child birth-(Rs)All	2835	8075	5518	11033
OOPE per child birth(Rs)– Public	1249	1857	1572	2094
OOPE per child birth(Rs)– Private	10573	13413	14727	19107
Non-hospitalized expenditure (In Rs.)				
OOPE per non-hospitalized ailing person(Rs) – Public	3831	19297	9840	9620
OOPE per non-hospitalized ailing person(Rs) – Private	13742	35351	15804	18919
OOPE on antenatal care(ANC) per pregnant woman(Rs)-Public	849	903	1388	1859
OOPE on ANC per pregnant woman(Rs)-Private	1932	3959	4791	5727
% of diagnostics expenditure as a proportion of outpatient medical expenditure	9%	30%	11%	12%
% of drugs expenditure as a proportion of outpatient medical expenditure	71%	46%	73%	68%
% of drugs expenditure as a proportion of outpatient medical expenditure-Public	85%	93%	76%	67%

*OOPE is net of reimbursements

Appendix B

Ram Sagar UPHC, Gaya (Bihar)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
3.6	31.3	30.9	23.0
Immunization	UPHC Score		Family Planning
35.4			11.2
Communicable Disease	11.6		Non Communicable Disease
1.6			3.0
Outreach	Pharmacy	Laboratory	General Administration
0.0	15.6	0.0	6.4

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 14.6	Patient Rights 23.8	Inputs 14.9	Support Services 10.7
HOSPITAL SCORE 11.6			
Clinical Services 15.0	Infection Control 0.0	Quality Management 2.4	Outcome 2.2

Sundergarh UPHC, Nalanda (Bihar)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
24.5	42.8	39.0	32.2
Immunization	UPHC Score		Family Planning
48.1			19.4
Communicable Disease	25.4		Non Communicable Disease
7.9			6.0
Outreach	Pharmacy	Laboratory	General Administration
42.7	26.6	0.0	22.5

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
32.0	35.0	33.1	29.5
HOSPITAL SCORE 25.4%			
Clinical Services	Infection Control	Quality Management	Outcome
33.9	5.1	0.0	6.7

Gardhani Bagh UPHC, Patna (Bihar)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
24.2	51.0	51.6	40.8
Immunization	UPHC Score		Family Planning
48.1			54.1
Communicable Disease	32.7		Non Communicable Disease
18.7			31.3
Outreach	Pharmacy	Laboratory	General Administration
49.1	38.5	0.0	18.2

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 54.1	Patient Rights 40.0	Inputs 40.5	Support Services 27.9
HOSPITAL SCORE 32.7%			
Clinical Services 49.5	Infection Control 6.4	Quality Management 1.6	Outcome 3.3

Bada Gaghra UPHC, Ranchi (Jharkhand)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
3.6	33.2	50.0	24.7
Immunization	UPHC Score		Family Planning
45.6			15.3
Communicable Disease	25.1%		Non Communicable Disease
4.0			6.0
Outreach	Pharmacy	Laboratory	General Administration
34.5	15.1	00.0	15.7

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
28.5%	25.8%	32.7%	25.3%
HOSPITAL SCORE			
25.1%			
Clinical Services	Infection Control	Quality Management	Outcome
31.9%	16.7%	8.9%	8.9%

Gaganathpur UPHC, Ranchi (Jharkhand)

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
15.1	38.5	52.0	25.3
Immunization	**UPHC Score**		**Family Planning**
34.8			34.1
Communicable Disease	**22.9%**		**Non Communicable Disease**
4.8			7.8
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
44.2	19.7	00.0	12.0

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
33.9%	30.0%	31.9%	15.5%
HOSPITAL SCORE **22.9%**			
Clinical Services	Infection Control	Quality Management	Outcome
30.0%	8.7%	4.9%	10.6%

Mango UPHC, Jamshedpur (Jharkhand)

PHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
20.8	56.7	72.4	56.3
Immunization	UPHC Score		Family Planning
62.0			52.9
Communicable Disease	34.4%		Non Communicable Disease
44.8			25.3
Outreach	Pharmacy	Laboratory	General Administration
00.0	28.0	27.2	23.3

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
49.4%	50.0%	44.2%	26.0%
HOSPITAL SCORE 34.4%			
Clinical Services	Infection Control	Quality Management	Outcome
39.3%	31.7%	3.3%	8.4%

Thematic Check list of UPHC Brajaramba Dispensary, Jobra, Cuttack

UPHC Brajaramba Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternal Health	New Born & Child Health
19.51%	37.25%	33.84%	20.79%
Immunization	UPHC Score		Family Planning
43.27%			15.04%
Communicable Disease	28.85%		Non Communicable Disease
15.53%			12.06%
Outreach	Pharmacy	Laboratory	General Administration
46.75%	41.25%	Not available	32.08%

UPHC BRAJARAMBA QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 48.56%	Patient Rights 45.26%	Inputs 43.02%	Support Services 35.29%
HOSPITAL SCORE 28.85%			
Clinical Services 41.35%	Infection Control 18.41%	Quality Management 0%	Outcome 0%

Thematic Check list of UPHC Jatani

UPHC Jatani Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternal Health**	**New Born & Child Health**
28.21%	**44.25%**	**34.97%**	**21.48%**
Immunization	**UPHC Score**		**Family Planning**
40.36%			**50.68%**
Communicable Disease	**37.68%**		**Non Communicable Disease**
42.52%			**30.15%**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
36.83%	**41.2%**	**36.56%**	**45.3%**

UPHC JATANI QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 62.74%	Patient Rights 46.92%	Inputs 51.39%	Support Services 52.14%
HOSPITAL SCORE 37.68%			
Clinical Services 54.9%	Infection Control 34.38%	Quality Management 2.5%	Outcome 0%

Govindpura UPHC, Bhopal (M.P.)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
49.0	67.3	71.1	57.5
Immunization	UPHC Score		Family Planning
67.7			57.6
Communicable Disease	51.6		Non Communicable Disease
58.7			35.5
Outreach	Pharmacy	Laboratory	General Administration
74.4	64.7	8.5	34.3

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
78.2%	51.5%	45.4%	57.2%
HOSPITAL SCORE 51.6%			
Clinical Services	Infection Control	Quality Management	Outcome
70.4%	55.4%	3.3%	0.0%

Bhawarkua UPHC, Indore (M.P.)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
49.5	62.5	48.0	54.0
Immunization	UPHC Score		Family Planning
18.4			38.8
Communicable Disease	34.3		Non Communicable Disease
16.7			38.6
Outreach	Pharmacy	Laboratory	General Administration
4.9	62.8	20.7	28.8

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
38.6%	46.9%	43.3%	41.8%
HOSPITAL SCORE 34.3%			
Clinical Services	Infection Control	Quality Management	Outcome
33.7%	39.7%	2.4%	0.0%

Anand Nagar UPHC, Bhopal (M.P.)

UPHC Quality Score Card			
Dressing Room & Emergency	General Clinic	Maternity Health	New Born & Child Health
48.4	65.4	72.8	52.9
Immunization	UPHC Score		Family Planning
73.4			32.4
Communicable Disease	56.2		Non Communicable Disease
47.2			47.0
Outreach	Pharmacy	Laboratory	General Administration
74.4	66.1	56.1	43.0

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision	Patient Rights	Inputs	Support Services
79.1%	53.5%	57.5%	66.4%
HOSPITAL SCORE			
56.2%			
Clinical Services	Infection Control	Quality Management	Outcome
73.4%	53.8%	7.3%	0.0%

Bibliography

1 Out-of-Pocket Spending on Out-Patient Care in India: Assessment and Options Based on Results from a District Level Survey, Gupta and Chowdhury, et al 2016.

2 Out of pocket expenditure among the households of a rural area in Puducherry, South India, R Archana and Sekhar Kar, KC Premarajan, and Subitha Lakshminarayanan, 2012.

3 Health Expenditure and Catastrophic Costs for Inpatient- and Out-patient Care in Iran. Zohreh Anbari and Mohammadbeigi et al, 2014.

4 Health services utilization and out-of-pocket expenditure at public and private facilities in low-income countries World Health Report 2010.

5 Study of Out-of-Pocket Expenditures for Outpatient Imaging Services in Imam-Khomeini Hospital, Sima Marzban et al 2014.

6 Out-of-pocket expenditure and its determinants in the context of private healthcare sector expansion in sub-Saharan Africa urban cities: evidence from household survey in Ouagadougou, Burkina Faso, Idrissa Beogo,corresponding author Nicole Huang, Marie-Pierre Gagnon, and Djesika D. Amendah, 2016.

7 Quality Standards for Urban Primary Health Centre January 2016.

8 Key Indicators of Social Consumption in India Health, NSS 71st Round January-June 2014.

9 Operational Guidelines for Quality Assurance in Public Health Facilities 2013.MoHFW, GoI.

10 Health care and equity in India. Lancet , Balarajan Y, Selvaraj S, Subramanian SV, 2011;377:505–15.

11 The cost of universal health care in India: A model based estimate,. Prinja S, Bahuguna P, Pinto AD, Sharma A, Bharaj G, Kumar V, et al, 2012