Monitoring Progress towards UHC at Country and Global Levels: A Framework

Joint WHO/ World Bank Group Discussion Paper

Presented by

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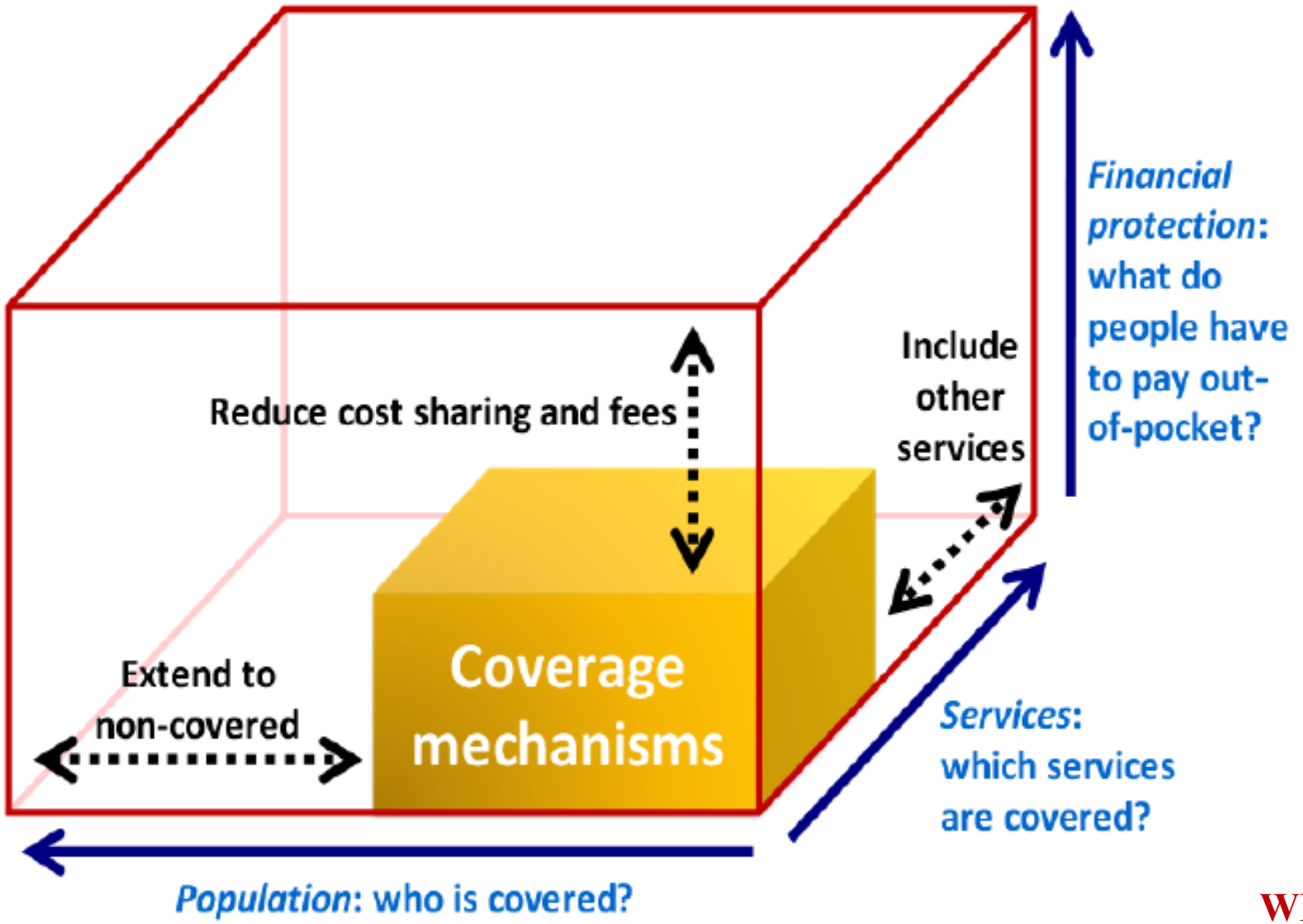
THE WORLD BANK

UHC: WHO Framework



WHO 2010 WHR

What is UHC?

- A situation where all people who need health services (prevention, promotion, treatment, rehabilitation, and palliative) receive them, without undue financial hardship
- 3 components
  - Full spectrum of quality health services as per need
  - Financial protection from direct payments for health services when consumed
  - Coverage for entire population

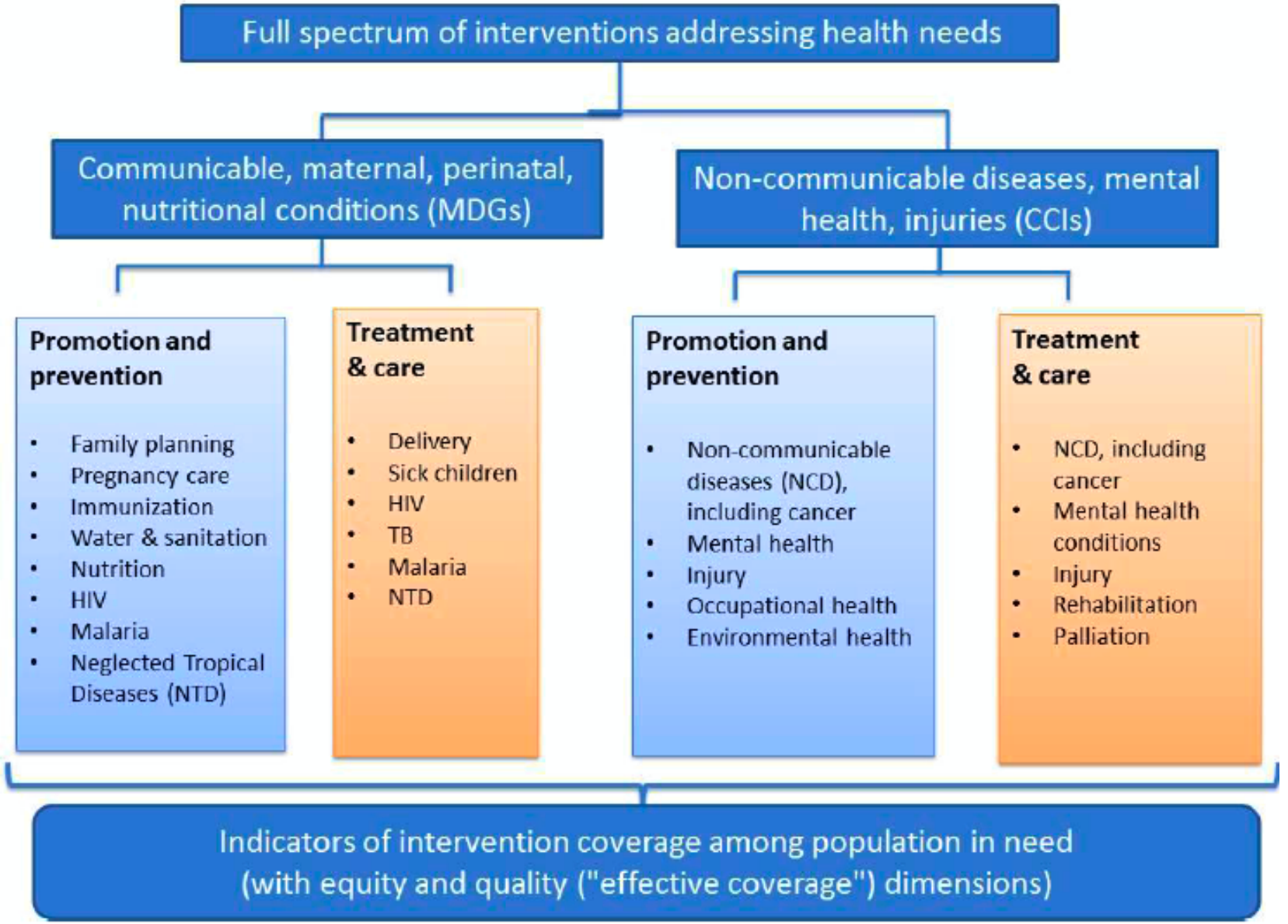
UHC: Towards Common Framework for Monitoring Progress

- Country Monitoring
  - UHC monitoring part of comprehensive health system performance monitoring
  - Country decides what should be monitored
- Global Monitoring
  - Standardization: comparability and monitoring trends
- UHC and Post-2015 Development Agenda

Guiding Principles

- Comprise service coverage and financial risk protection
- Encompass full population across life cycle and all ages and gender
- Capture all levels of health system
- Service coverage and risk protection should be analyzed from equity perspective

Methodological Considerations: Service Coverage



Choice of Service Indicators for Monitoring

- Relevance
- Quality
- Availability

Financial Risk Protection

- Protection from “Catastrophic health spending”

- Protection from “impoverishment”

Measuring Equity

- Caution against UHC: Inverse Equity Hypothesis

- Compare coverage in Poorest 40% as against the overall coverage

Setting Targets for Achieving UHC

- 100% coverage: Is it realistic?
- “80:40” target for both MDG and CCI services
- 100% financial risk protection for overall and poorest 40%
- Timeline:
  - 2030: To match with Post-2015 development framework
  - Need to draw rates of improvement needed!

Way Forward

- Country level monitoring
  - Tailored UHC monitoring
  - Make UHC monitoring part of comprehensive health sector performance monitoring framework
- Investing in better UHC monitoring
  - Generating quality data for monitoring

A Composite Indicator to Measure Universal Health Care in India

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Moving Towards Universal Health Coverage in Nepal, Kathmandu, 20-21 April, 2014

Setting

PGIMER School of Public Health

Universal Health Care

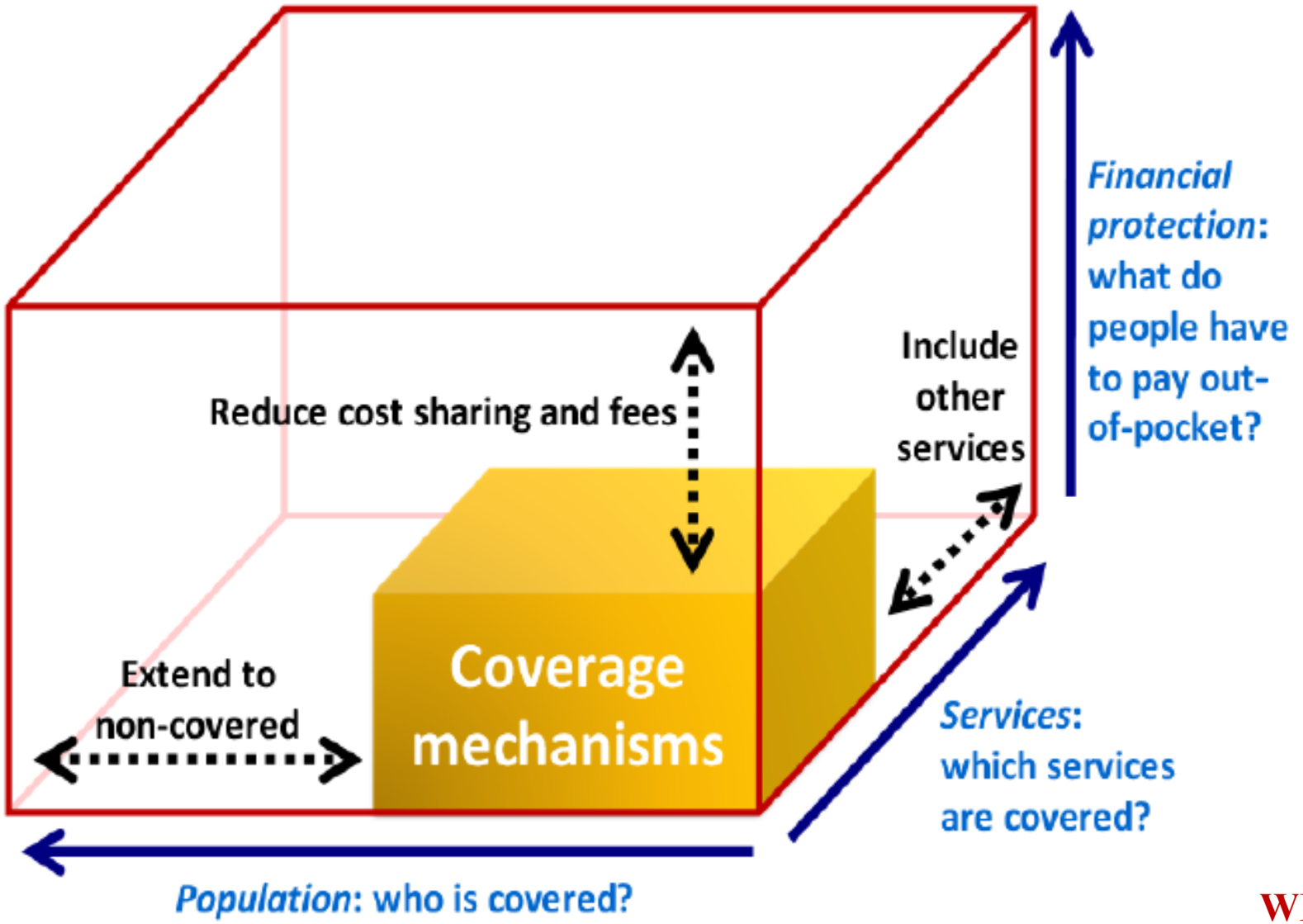
- Important policy issue, both globally and locally (WHO 2010, WHO 2012, Planning Commission 2012, HLEG 2012)

- How to measure UHC? No conclusive answer
  - Boerma T et al (2012); followed by Sherri H et al (2013)
  - GOI (2013)
  - Sundararaman et al (2013)
  - Bhutan (2013)
  - WHO-WB Framework

Gaps in Existing Approaches

- Descriptive picture (Sundararaman et al, 2013)
- Does not cover all relevant indicators (GOI, 2013 and Sundararman, 2013)
- Crude statistical methods used to aggregate input variables (Boerma, 2012; Abt Asociates, 2013)
- Motivation for present study
- Objective: To develop a composite indicator to measure UHC

UHC: WHO Framework



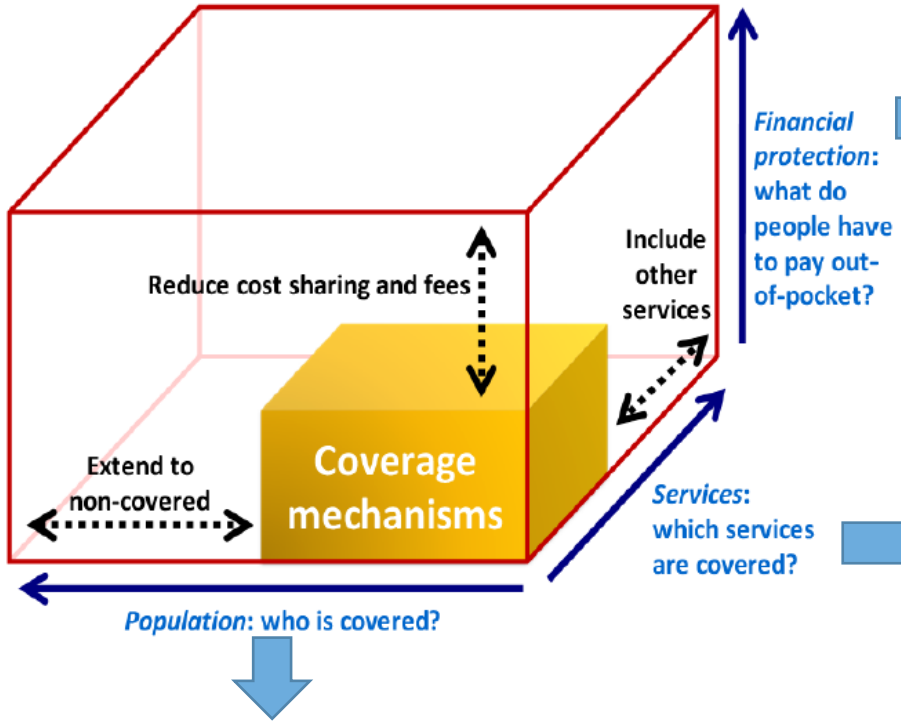
WHO 2010 WHR

Improving the WHO Framework

Quality of UHC Care

Curative Care by Qualified Providers

Full Effective ANC Care



Achievement Index
(for each service and financial protection indicator)

Catastrophic Expenditure

Poverty Headcount

ANC (Full ANC Care)

Delivery (Institutional Del)

PNC (6 ASHA visits)

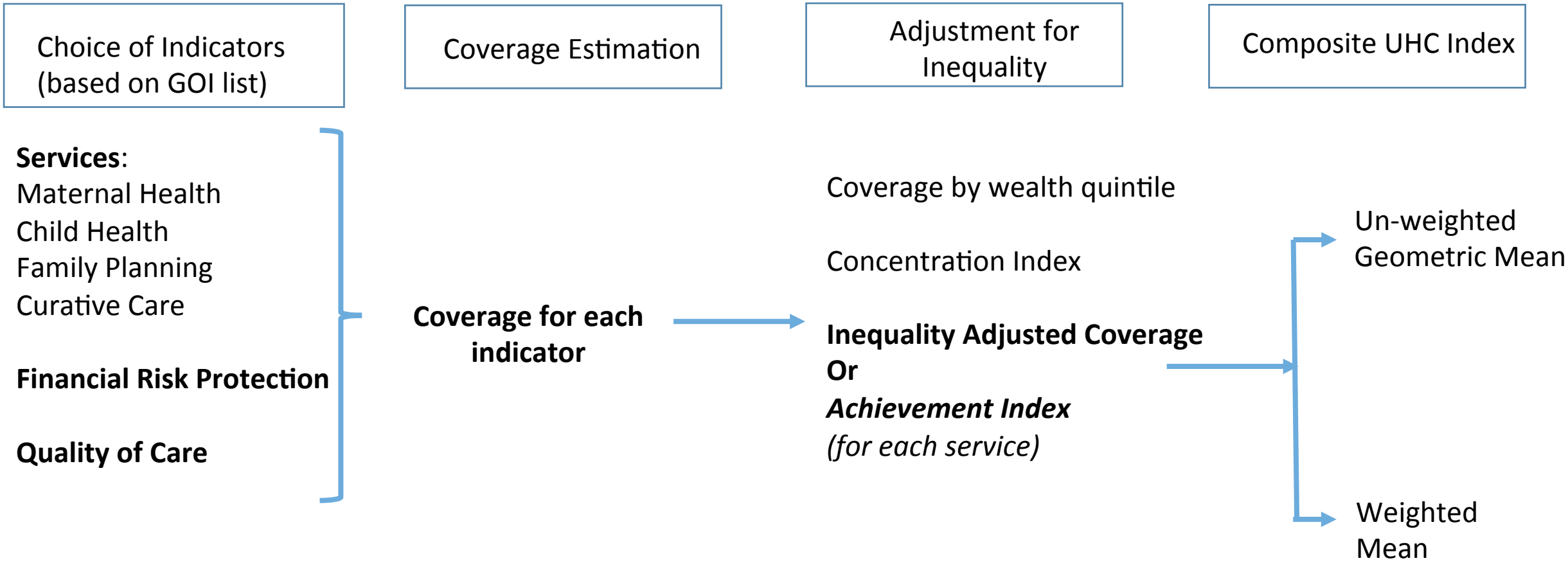
Immunization (Full Immz)

FP (CPR)

U-5 Child care (ORS Use)

Curative Care (Met Need)

Measuring UHC: Analytic Framework



Data

- Study design and period
  - Community based cross-sectional survey
  - Started in September 2012, planned for three years
  - As part of an overall evaluation of the National Health Mission (NHM)

- Data collection
  - Random selection of sub-centres (PSU) in all districts.
  - 30 field investigators collect
    - Household level data electronically using laptops

Questionnaire: Type of Clients

6 sections :

- Section A: Socio-demographic information
- Section B: ANC, PNC and infant care module
- Section C: Immunization of 12-23 month old child
- Section D: Family planning module
- Section E: Under-five child module
- Section F: Morbidity and cost-of-care module

SCHOOL
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PUBLIC HEALTH

Welcome To This Project : **Suman**

Main Menu

School Of Public Health - PGIMER - Chandigarh

- New Entry
- Send Data
- Display Records
- Auto Generate MIS Validation Tool
- Auto Generate MIS Validation Tool 2
- MIS Validation Tool-1
- MIS Validation Tool-2

The National Rural Health Mission has been launched on 12th April, 2005 for a period of seven years (2005 -2012) for providing integrated comprehensive Primary Health Care Services, specially to the poor and vulnerable sections of the society. The NRHM would operate as an omnibus broadband programme by integrating all vertical health programmes of the Departments of Health and Family Welfare including Reproductive & Child Health Programme -II, National Malaria Programme, National Leprosy Eradication Programme, National Kala-Azar Programme, National Iodine Deficiency Disorder Programme, National Filaria Programme.

My Account

Section-A	3
Section-Members	21
Section-B	5
Section-C	1
Section-D	1
Section-E	2
Section-Fi	4
Section-Fh	3
Death Records	2
Records wastage	0

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Concurrent Evaluation of NRHM:

The Haryana Health Survey

A. Area and household characteristics

Username. Suman | Distt Name. Gurgaon | Date. 2013-12-10 | Time. 10:29 am

Form No. Gur 03 05 03 004 | Respondent Name. Neha | Head Name. Amit

12. Household Assets (for assessing socioeconomic status)

Type of house: 2. Semi Pucca House

Main source of drinking water: 2. Hand pump

Main source of lighting: 1. Electricity

Main type of cooking fuel: 1. Fire wood

Ownership of any irrigated agricultural land: Yes ○ No ◉

Ownership of any livestock: Yes ◉ No ○

Ownership of house: Yes ◉ No ○

Toilet facility: Select

Household item

A cot or Bed?	☑	A bicycle/tricycle?	☑	A radio or Transistor?	☑	A sewing machine?	☐
A mattress?	☑	A motorcycle or scooter?	☑	A black & white television?	☐	A pressure cooker?	☐
A sofa set?	☑	An animal-drawn cart?	☐	A colour television?	☐	A water pump?	☐
A table?	☐	A car?	☐	A computer?	☐	An air cooler?	☐
A chair?	☐	A tractor?	☐	A mobile Telephone?	☐	A refrigrator?	☐
Any watch or clock?	☐	A thrasher?	☐	Any other type of telephone?	☐	A washing machine?	☐

Toilet facility | Select

Household item

A cot or Bed?	☑	A bicycle/tricycle?	☑	A radio or Transistor?	☐	A sewing machine?	☐
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Any watch or clock?	☐	A thrasher?	☐	Any other type of telephone?	☐	A washing machine?	☐

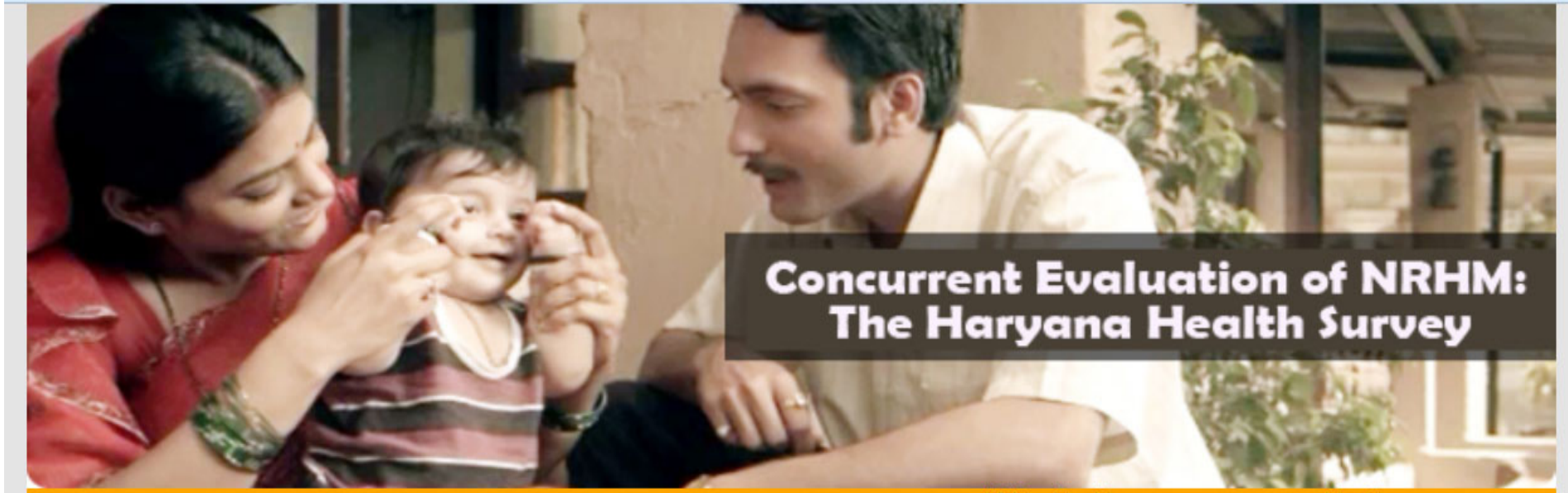
Household Composition

Pid	Name	Age (Year-Month)	Sex	Marital Status	Relation to Head	Educational Qualification	Occupation	Whether currently pregnant	Delivery in last 1 year	Any Illness in last 15 days	Any Hospitalization in last 1 year
☐ 01	Amit	29 - 0	M	Married	Self	1.literate with	2.Agricu	Select	Select	Yes	No
				Sec F-i							
☐ 02	Neha	23 - 0	F	Married	Wife	1.literate with	6.Unpai	No	Yes	No	No
		Sec B		Sec D							
☐ 03	Varun	1 - 6	M	Single	Son	0.Illiterate	8.Unem	No	No	No	Yes
		Sec C		Sec E		Sec F-h					

(If You Have Extra Family Member's Row : Select Checkbox and Press - Delete Row) -> Delete Row

Confirm Total Number Of Family Members Again: | No. of Family Members: 3

Submit | Cancel



Username : Suman | Dist Name : Gurgaon | Date : 2013-12-10 | Time : 10:50 am

Form Status : Open The File | Responded Name : Neha | Head Name : Amit

Name : Neha

Age : 23 Year

Sex : F

Form S.No: Gur 03 05 03 004 | Form Pid: Gur 03 05 03 004 02 | Form Sid: Gur 03 05 03 004 02 D 02

Section - D

Family Planning module for 15-45 years married Women

Name Of The Respondent :

Relationship to The 15-45 year old married women : Select

D1. Are you/your husband currently doing something or using any method to delay or avoid getting pregnant? Select Your Option

Submit Cancel

Username : Suman | Dist Name : Gurgaon | Date : 2013-12-10 | Time : 10:53 am

Form Status : Open The File | Responded Name : Neha | Head Name : Amit

Name	:	Varun
Age	:	1 Year 6 Months
Sex	:	M

Form S.No:	Gur 03 05 03 004	Form Pid:	Gur 03 05 03 004 03	Form Sid:	Gur 03 05 03 004 03 E 03

Section - E

Under-5 year child module

Name Of The Respondent :

Relationship With Under 5 Year Old Child : Select

E1. Did Varun suffer from diarrhoea in the last two weeks?	Select
E8. Has Varun been ill with fever at any time in the last two weeks?	Select
E9. Has Varun been ill with cough or cold at any time in the last two weeks?	Select

Submit Cancel

Sample Size

Section	Type of individual to be covered	Sample size at sub-centre level
Section B	Women who were pregnant in last 1 year	23
Section C	Children between 12-23 months of age	19
Section D	Eligible couples	88
Section E	Under-five children	63
Section F	Individuals who fell ill in last 15 days or were hospitalised in last 1 year	54 illness 23 hospitalizations

Data

Characteristics	Number
Households	51656
Households (Rural)	36942
Households (Urban)	14714
Individuals	275550
Primary Sampling Units	>500
Number of PSUs used for PCA Analysis	137

Data

S.No.	Category of Client Interviewed	Number
1.	Women having delivered in last 1 year (ANC, PNC, Delivery)	8609
2.	12-23 month year old children studied	7137
3.	Eligible couples interviewed	30886
4.	No. of <5 year old children	24580
5.	Individuals interviewed for eliciting cost of medical care information	27336

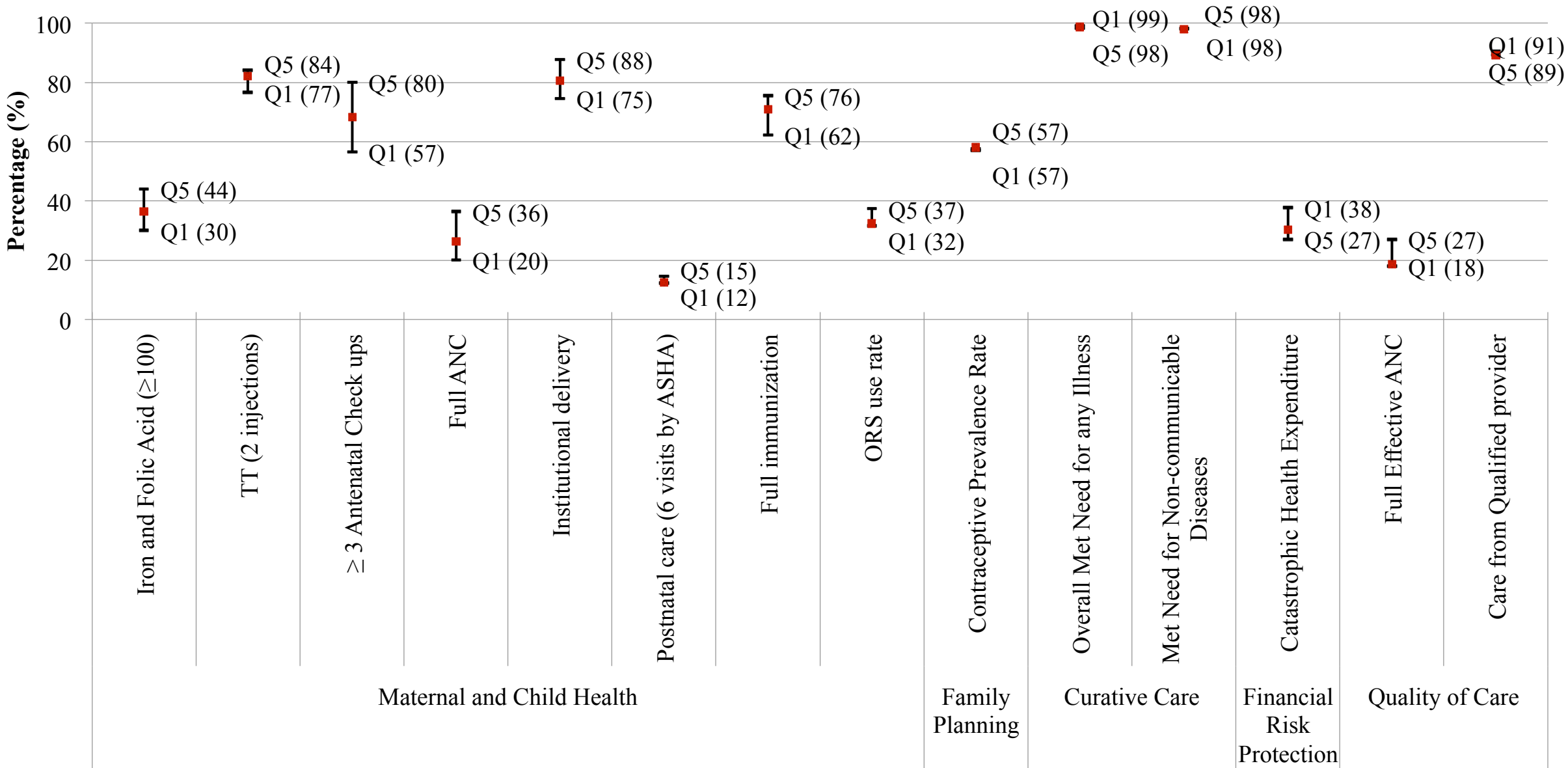
Data Quality

- Continuous repetition of data collection on randomly selected 10% households by five supervisors for quality check.
- 5% data quality checking in field by research staff at PGIMER.
- Insignificant difference between coverage recorded by investigator and supervisor
- Exact response matched in more than 85% of individuals for all the variable tested

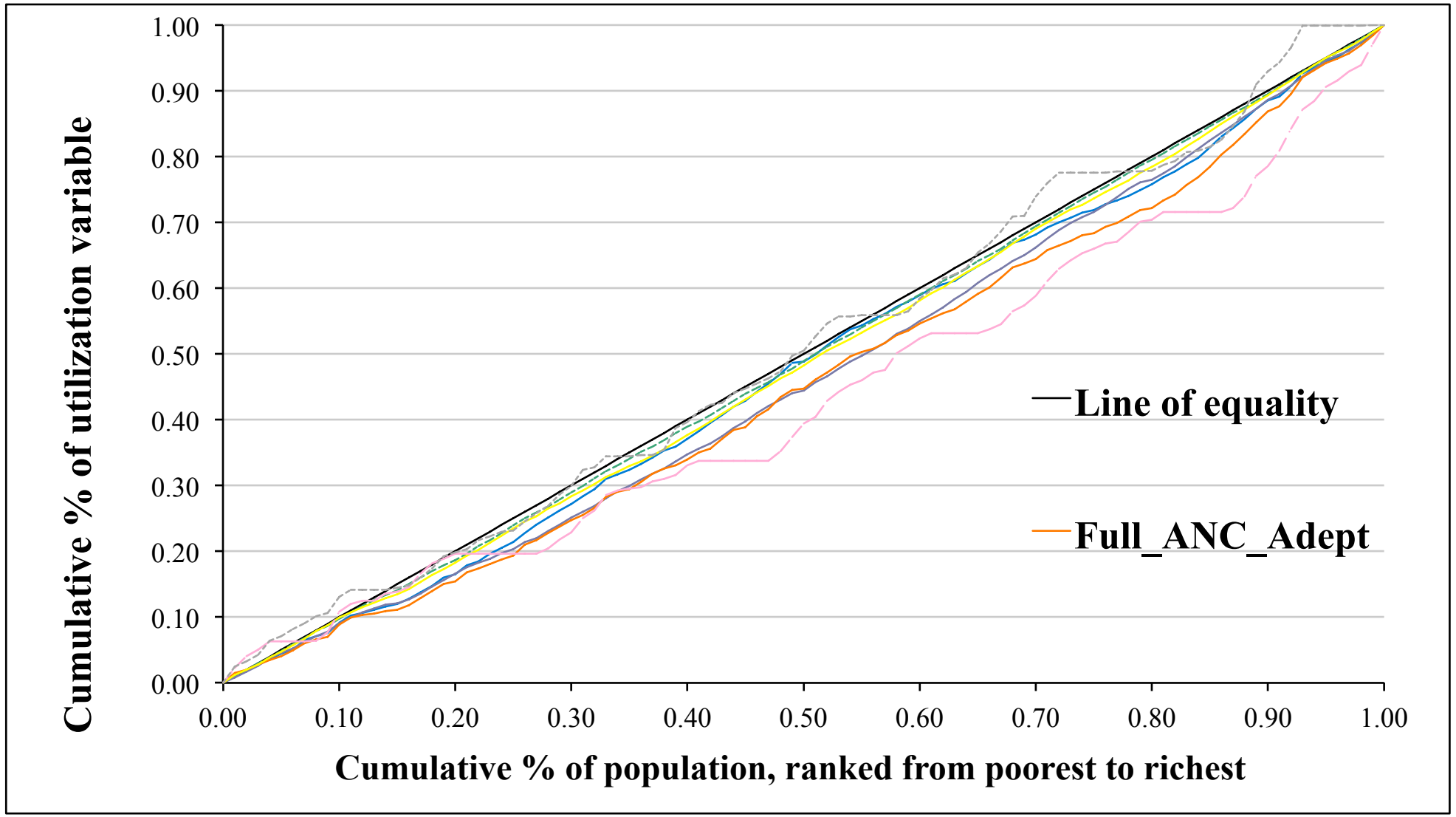
Sample Weighting

- Sample Weights
  - District Level
    - Area (rural/urban)
    - Caste
    - Education (Head of household)
  - State Level
    - District Population

Assessing Inequalities: Comparing the Poorest and Richest



Adjustment for Inequality: Concentration Curve, Index and Achievement Index



Concentration Index:

Value: +1 to -1

Positive Value: Pro-rich

Negative value: Pro-poor

Achievement Index

O'Donnell et al (2006)

State Level Results

Coverage of Reproductive & Child Health Services

Indicator (RCH)	Coverage (%)	Concentration Index (SE)	Inequality Adjusted Coverage
Iron and Folic Acid (≥100 tabs)	36.4	0.172 (0.012)	30.1
TT (2 injections)	82	0.05 (0.005)	78.2
≥ 3 Antenatal Checkups	68.1	0.133 (0.007)	59.2
Full ANC	26.2	0.24 (0.016)	20
Institutional Delivery	80.5	0.067 (0.005)	76.7
Postnatal care (6 visits by ASHA)	12.4	0.228 (0.025)	9.6
Full Immunization	70.9	0.095 (0.01)	64.2
ORS use rate	32.4	0.177 (0.03)	26.7
Contraceptive Prevalence Rate	58.1	0.083 (0.004)	53.3

**** SE: Standard error***

Coverage of Curative Care

Indicator (Curative care)	Coverage	Concentration Index (SE)	Inequality Adjusted Coverage
Overall Met Need for Illness	98.6	0.001 (0.001)	98.6
Met Need for Non-communicable Diseases	97.9	0.003 (0.003)	97.7

** SE: Standard error*

Financial Risk Protection

Indicator (Financial risk protection)	Coverage	Concentration Index (SE)	Inequality Adjusted Coverage
Prepayment Poverty Headcount (@1.25$)	7.1	-	-
Postpayment Poverty Headcount (@1.25$)	23.2	-	-
Prepayment Poverty Headcount (@2$)	28.6	-	-
Postpayment Poverty Headcount (@2$)	44.8	-	-
Catastrophic Health Expenditure	30.3	0.045 (0.02)	28.9
Poverty Impact-Headcount (@1.25$)	16.1	-	-
Poverty Impact-Headcount (@2$)	16.2	-	-

**** SE: Standard error***

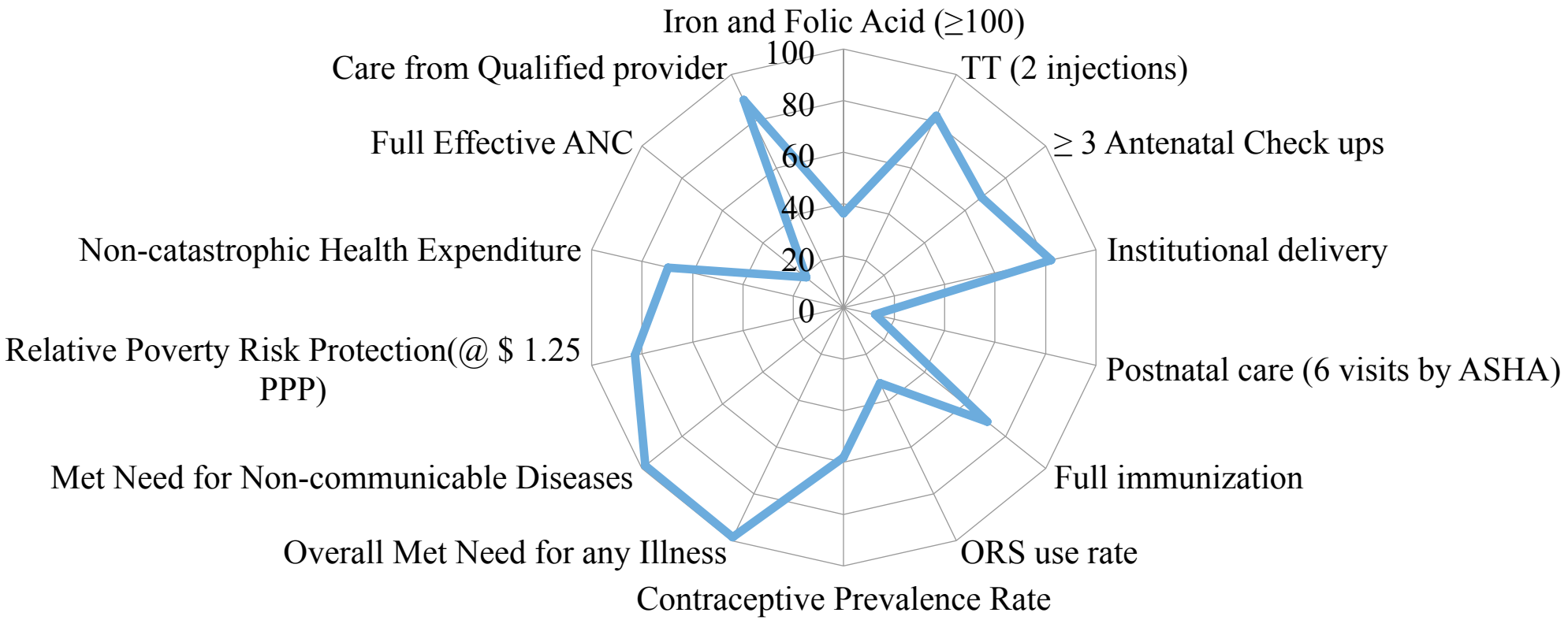
Quality of Care

Indicator (Quality of care)	Coverage	Concentration Index (SE)	Inequality Adjusted Coverage
Full Effective ANC#	18.1	0.027 (0.021)	13.5
Care from Qualified Provider	89.4	0.024 (0.002)	87

#Full Effective ANC includes; 100 IFA, 2 TT, 3ANC, Weight measurement, Height measurement, BP measurement, Blood test, Urine test, Abdominal examination, Birth preparedness advice, nutritional advice.

**** SE: Standard error***

Extent of Universal Health Care in Haryana state, India, 2012-13



District Level Findings

Full ANC Coverage (%) in 21 Districts, Haryana, India

Districts	Full ANC		
	Coverage (SE)	Concentration Index (SE)	Inequality adjusted coverage
Ambala	35.5 (3.9)	0.272 (0.04)	25.9
Bhiwani	9.4 (1.8)	0.421 (0.09)	5.5
Faridabad	17.8 (2.1)	0.514 (0.06)	8.7
Fatehabad	24.3 (3.6)	0.212 (0.08)	19.1
Gurgaon	51.6 (3.3)	0.261 (0.04)	38.2
Hisar	39.4 (4)	0.285 (0.05)	28.2
Jhajjar	42.2 (2.6)	0.262 (0.03)	31.1
Jind	46.1 (3.5)	0.264 (0.04)	33.9
Kaithal	40.2 (3.3)	0.215 (0.04)	31.6
Karnal	12.8 (2.3)	0.265 (0.11)	9.4
Kurukshetra	57.8 (3.4)	0.190 (0.03)	46.8
Mahendergarh	30.9 (3)	0.210 (0.06)	24.4
Mewat	3.2 (1)	0.626 (0.14)	1.2
Palwal	10.9 (1.5)	0.607 (0.06)	4.3
Panchkula	39.2 (5)	0.253 (0.06)	29.3
Panipat	30.5 (3.3)	0.524 (0.05)	14.5
Rewari	32.9 (2.6)	0.356 (0.04)	21.2
Rohtak	37 (3.6)	0.511 (0.05)	18.1
Sirsa	13.9 (2.3)	0.325 (0.09)	9.4
Sonipat	29.1 (3.2)	0.156 (0.06)	24.6
Yamunanagar	32.7 (3.6)	0.192 (0.06)	26.4
Haryana	26.2 (0.7)	0.24 (0.016)	20.0

Institutional Delivery Coverage (%) in 21 Districts, Haryana, India

Districts	Institutional delivery		
	Coverage (SE)	Concentration Index (SE)	Inequality adjusted coverage
Ambala	94.7 (1.6)	0.017 (0.02)	93.1
Bhiwani	90.7 (1.5)	0.04 (0.01)	87.1
Faridabad	77.4 (2.5)	0.1 (0.06)	69.7
Fatehabad	76.8 (3.5)	0.096 (0.03)	69.4
Gurgaon	76.7 (2.8)	0.159 (0.03)	64.5
Hisar	83.3 (3)	0.051 (0.02)	79.0
Jhajjar	87.7 (1.7)	0.068 (0.01)	81.8
Jind	89.4 (2)	0.069 (0.02)	83.2
Kaithal	84.4 (2.2)	0.082 (0.02)	77.5
Karnal	80.9 (2.6)	0.1 (0.02)	72.7
Kurukshetra	93.4 (1.7)	0.031 (0.01)	90.4
Mahendergarh	91.1 (1.7)	0.046 (0.01)	86.8
Mewat	57 (3)	0.186 (0.03)	46.4
Palwal	52 (2.4)	0.245 (0.03)	39.3
Panchkula	91.1 (3.9)	0.056 (0.03)	86.0
Panipat	72.3 (2.9)	0.117 (0.03)	63.9
Rewari	98.2 (0.5)	0.014 (0.00)	96.8
Rohtak	91.5 (1.9)	0.065 (0.02)	85.6
Sirsa	84.7 (2.4)	0.095 (0.02)	76.6
Sonipat	77 (3)	0.074 (0.02)	71.3
Yamunanagar	79.7 (3.2)	0.108 (0.03)	71.1
Haryana	82.2 (0.7)	0.067 (0.005)	76.7

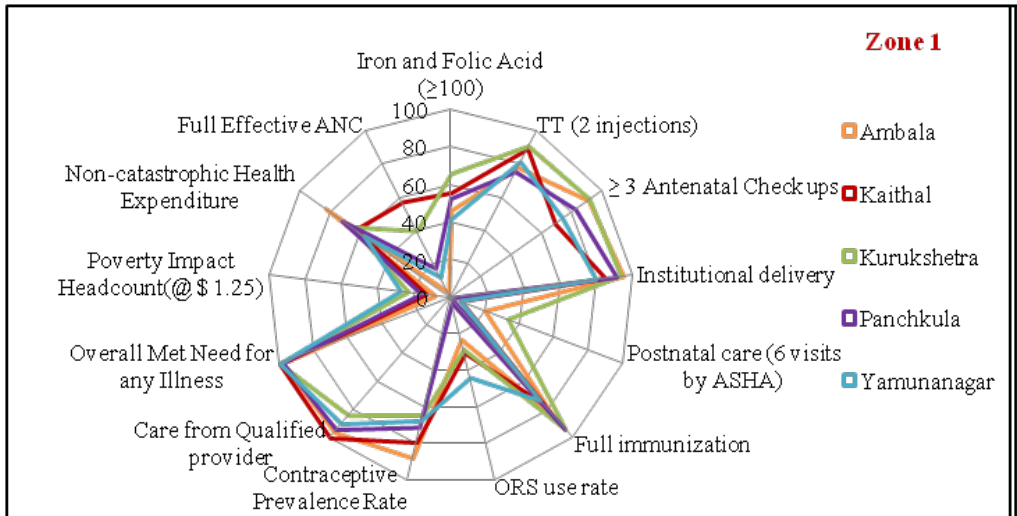
Full Immunization Coverage (%) in 21 Districts, Haryana, India

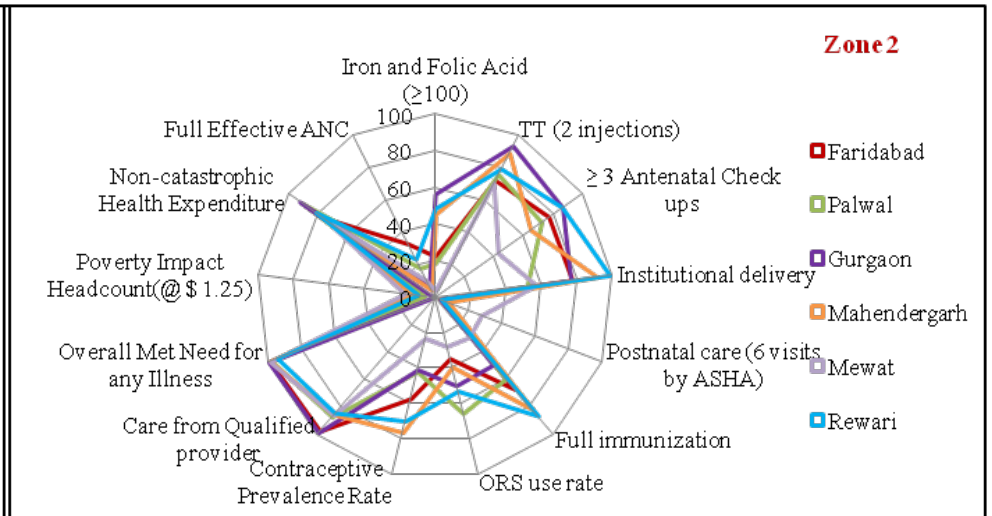
Districts	Full immunization		
	Coverage (SE)	Concentration Index (SE)	Inequality adjusted coverage
Ambala	84.1 (2.9)	0.08 (0.02)	77.3
Bhiwani	84.5 (2.4)	0.028 (0.01)	82.1
Faridabad	67.1 (2.5)	0.074 (0.02)	62.1
Fatehabad	72.6 (3.2)	0.103 (0.02)	65.1
Gurgaon	49.1 (3.1)	0.313 (0.04)	33.7
Hisar	67.7 (3.6)	0.157 (0.03)	57.1
Jhajjar	72.9 (2)	0.097 (0.02)	65.8
Jind	84.3 (2.2)	0.025 (0.01)	82.2
Kaithal	75.6 (2.7)	0.14 (0.02)	65.0
Karnal	75.3 (2.9)	0.121 (0.03)	66.2
Kurukshetra	94.3 (1.7)	0.033 (0.01)	91.3
Mahendergarh	82.3 (1.9)	0.048 (0.01)	78.4
Mewat	28.9 (2.4)	0.337 (0.04)	19.2
Palwal	59.6 (2.4)	0.123 (0.02)	52.3
Panchkula	93.5 (1.6)	0.043 (0.01)	89.5
Panipat	57.9 (3)	0.072 (0.03)	53.7
Rewari	86.8 (1.6)	0.038 (0.01)	83.6
Rohtak	93.2 (1.8)	0.039 (0.01)	89.6
Sirsa	75 (3)	0.1 (0.02)	67.5
Sonipat	68.9 (3.3)	0.155 (0.03)	58.2
Yamunanagar	73.4 (2.9)	0.107 (0.02)	65.6
Haryana	70.9 (0.8)	0.095 (0.01)	64.2

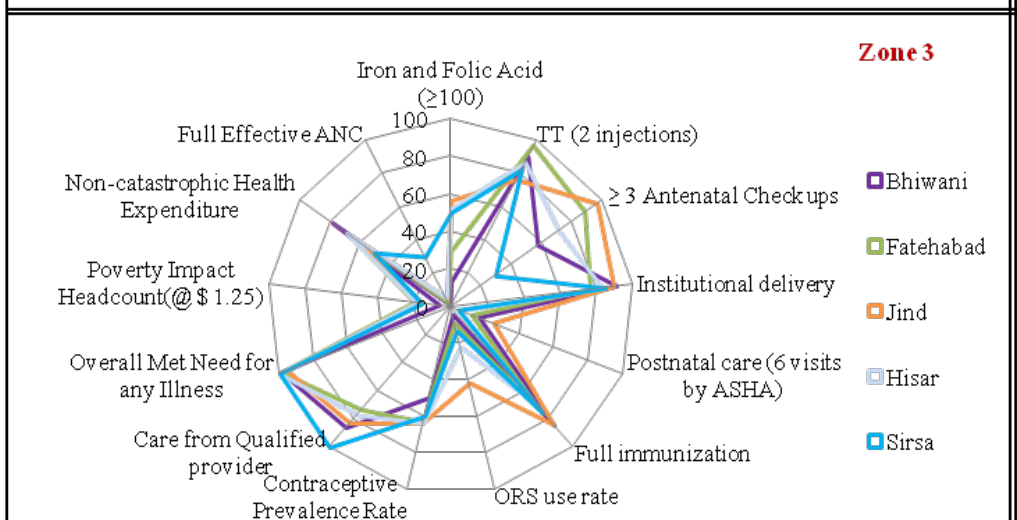
Prevalence of Catastrophic Health Expenditure (%) in 21 Districts, Haryana, India

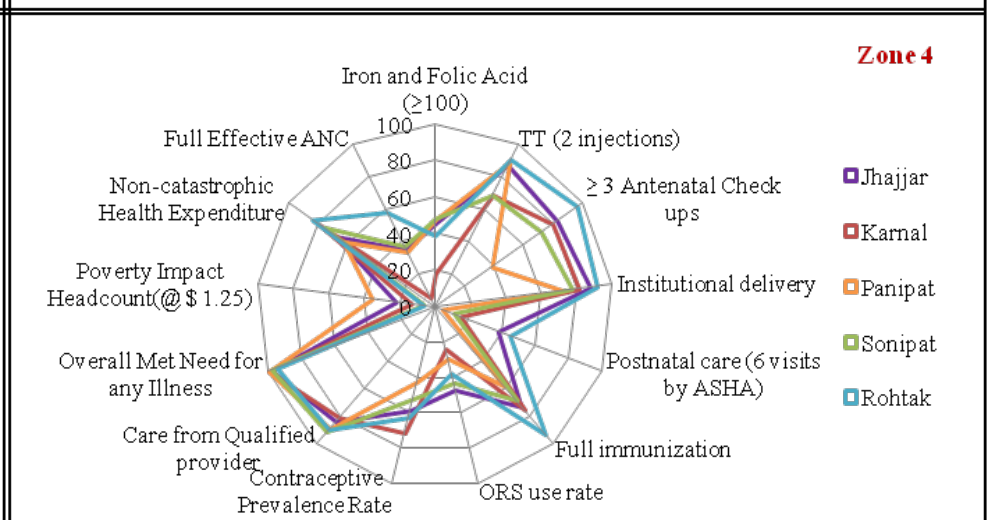
Districts	Catastrophic Health Expenditure		
	Coverage (SE)	Concentration Index (SE)	Inequality adjusted coverage
Ambala	16.6 (2.9)	0.070 (0.11)	15.4
Bhiwani	21.5 (3.2)	0.202 (0.08)	17.2
Faridabad	23.3 (2.5)	0.261 (0.06)	17.2
Fatehabad	33.3 (3.9)	0.085 (0.07)	30.5
Gurgaon	7.8 (1.6)	-0.233 (0.08)	9.6
Hisar	30.7 (4)	0.098 (0.07)	27.7
Jhajjar	32 (2.5)	-0.026 (0.05)	32.8
Jind	35.8 (3.5)	0.04 (0.06)	34.3
Kaithal	36.5 (3.6)	0.049 (0.06)	34.7
Karnal	21.2 (3.1)	0.103 (0.09)	19.0
Kurukshetra	34.2 (4.1)	-0.069 (0.07)	36.6
Mahendergarh	23.6 (3.5)	0.198 (0.09)	18.9
Mewat	25.8 (2.7)	0.127 (0.06)	22.5
Palwal	9 (1.4)	0.046 (0.12)	8.5
Panchkula	28 (6.3)	0.188 (0.13)	22.8
Panipat	37.1 (3.1)	0.051 (0.05)	35.2
Rewari	18.8 (2.3)	0.046 (0.08)	17.9
Rohtak	16.3 (2.9)	0.268 (0.13)	11.9
Sirsa	49.1 (3.9)	-0.045 (0.05)	51.4
Sonipat	24.1 (3.7)	-0.017 (0.09)	24.5
Yamunanagar	42.2 (3.5)	-0.009 (0.05)	42.5
Haryana	30.3 (0.9)	0.045 (0.02)	28.9

Extent of coverage of Universal Health Care coverage in four Zones of Haryana state, India, 2012-13









Composite Universal Health Care Index (CUHCI) & District Ranking

Composite UHC Index: 2 Methods

❖ Un-weighted Geometric Mean Approach

- Followed the methodology used in HDI creation by UNDP
  - Ratio scale and non-comparable indicators*

	Comparable	**Non-Comparable**
Interval Scale	Arithmetic Mean	Dictatorial ordering
Ratio Scale	Any homothetic measure	Geometric Mean

***Ebert and Welsch (2004); Singh RK et al (2008)**

Composite UHC Coverage in 21 Districts of Haryana State

Sensitivity Analysis

- Multiple ways of computing the Composite UHC Index
  - Using alternate mix of individual indicators: 4 different scenarios, with varying combination of indicators
  - With and without weighting: PCA and Regression based methods
  - With inequality adjustment for population coverage and financial risk protection
  - Concordance with base estimate tested by estimating correlation coefficient and kappa

Concordance between Methods for Measuring UHC

Alternative Scenarios	Description	Method	Correlation coeff. (r)	Kappa (p-value)
Scenario 1	Only maternal health indicators	Geometric Mean Approach	0.8 (0.63,0.90)	0.533 (0.01)
Scenario 2	Maternal health and Child health indicators	Geometric Mean Approach	0.83 (0.69,0.94)	0.533 (0.01)
Scenario 3	Maternal health, Child health and Family Planning indicators included	Geometric Mean Approach	0.86 (0.69,0.96)	0.533 (0.01)
Scenario 4	Maternal health, Child health, Family Planning and Curative care indicators	Geometric Mean Approach	0.93 (0.83,0.98)	0.844 (<0.0001)
Scenario 5:PCA	All indicators	Principle Component Analysis (PCA)	0.85 (0.55,0.96)	0.533 (0.01)
Scenario 6:REG	All indicators	Multiple-Linear Regression weighting	0.83 (0.64,0.94)	0.689 (<0.0001)
Scenario 7:HDI	All indicators using inequality adjusted coverages	Geometric Mean Approach	0.95 (0.85,0.99)	0.689 (<0.0001)

****Base case:** *All indicators* **using geometric mean approach***

Note 2:Correlation coefficient and Cohen's Kappa as validation measure are calculated to see the concordance between base case and different scenarios.

Policy Relevance

- Focusing on traditional preventive (or RMNCH) indicators alone can be misleading for UHC estimation
  - Need to incorporate curative care indicators
  - Need to include financial risk protection

- Good correlation and agreement after adjustment for inequality; and with weighting
  - For sake of ease of computation, un-weighted composite index can be used for country estimations of UHC
  - Equity estimations can be done to assess distributional benefits

Policy Relevance

- Emphasis on financial risk protection alone may be misleading
- Choice of indicators need to be guided by local benefit package
- CUHCI is good for snapshot communication of performance
- Need to be supplemented with spider diagram

Financial Risk Protection (FRP)

- What about other ex-post FRP measures: i.e. coping mechanisms
- Sensitive to threshold for assessing catastrophic expenditure and impoverishment
- Should we have both indicators of FRP?
  - FRP is protection of the consumption
  - Yes, prevention from impoverishment target is not protection from consumption
- Loss of earning?
  - No, UHC does not address it

Financial Risk Protection (FRP)

- Household income not constant: Will affect trends?
- Use FRP with service coverage for monitoring
- Need for better data
  - Surveys with better expenditure data tracking module
  - Recall bias
  - Discretionary and non-discretionary medicines and treatment

Service Coverage

- Why the distinction between MDG and CCI?

- Getting data on quality of service

Conclusion

- Single composite UHC indicator useful tool for policy making and public communication: use un-weighted as base case
- Detailed breakup should be used to identify focal actions
- Composite UHC indicator should be advocated as a key goal in the Post-2015 Development agenda and Country Monitoring Frameworks
- Need to generate data on service (preventive and curative) coverage and OOP expenditure

Technical Discussion on Universal Health Coverage
New Delhi, India, 10-12 July 2013

Measuring Universal Health Coverage in Bhutan

Status and Challenges

Approach

Key indicators on 3 UHC dimensions

- Shortlist of 15 indicators.
- Shortlist criteria: (1) FYP inclusion, (2) UHC dimensions fit, and (3) sub-national assessment

Data and analysis

- Assessment of the data gaps
- Indicator values/estimates
- Data sources:
  - Quantitative: BHMIS, Annual Household Surveys, national surveys
  - Qualitative: Open ended interviews (n=20), national reports, PubMed (237/5)

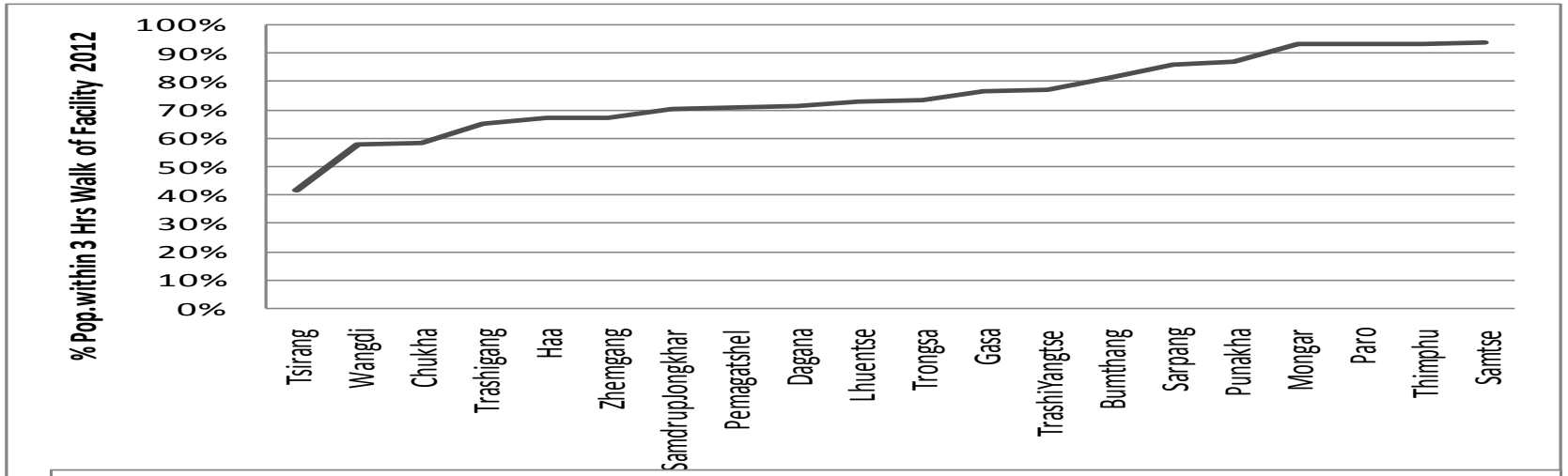
Findings and way forward

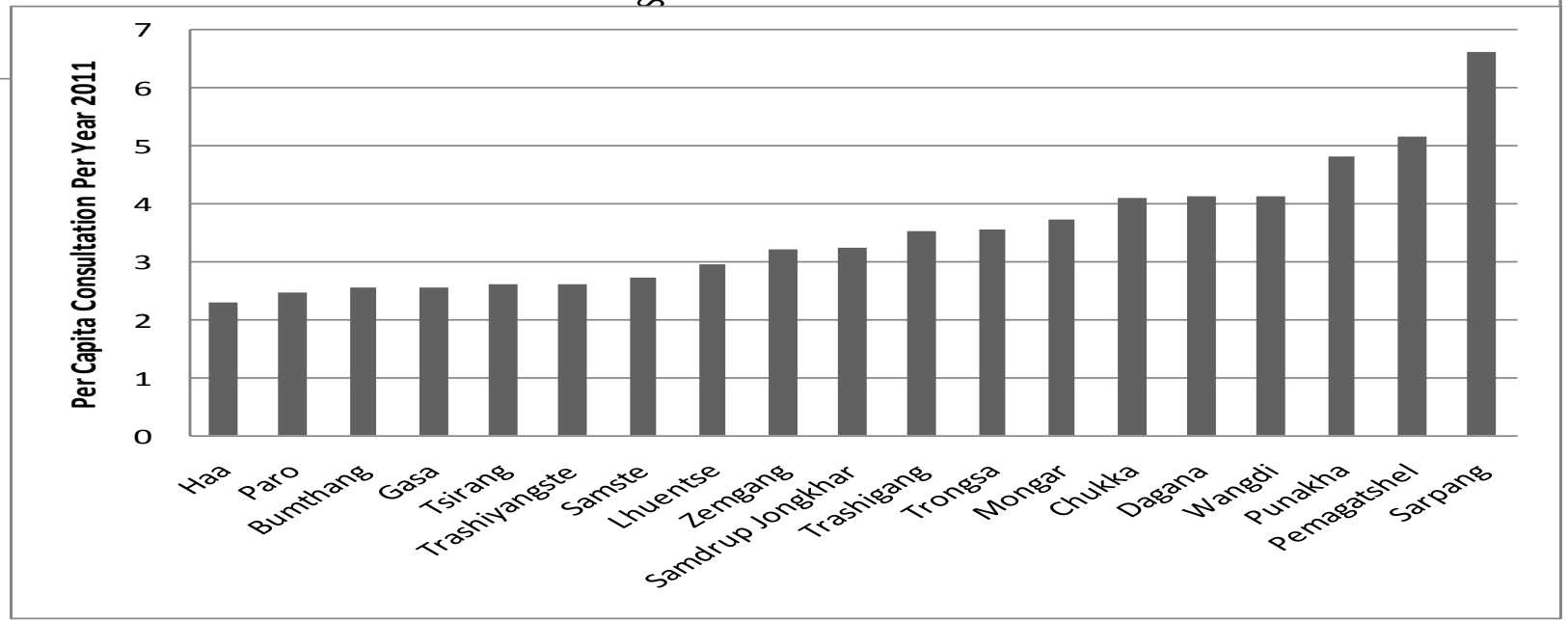
- Gaps in data and methods (Findings 1)
- Preliminary estimates on 3 UHC dimensions (Findings 2)
- Recommendations for way forward on monitoring UHC
- UHC index

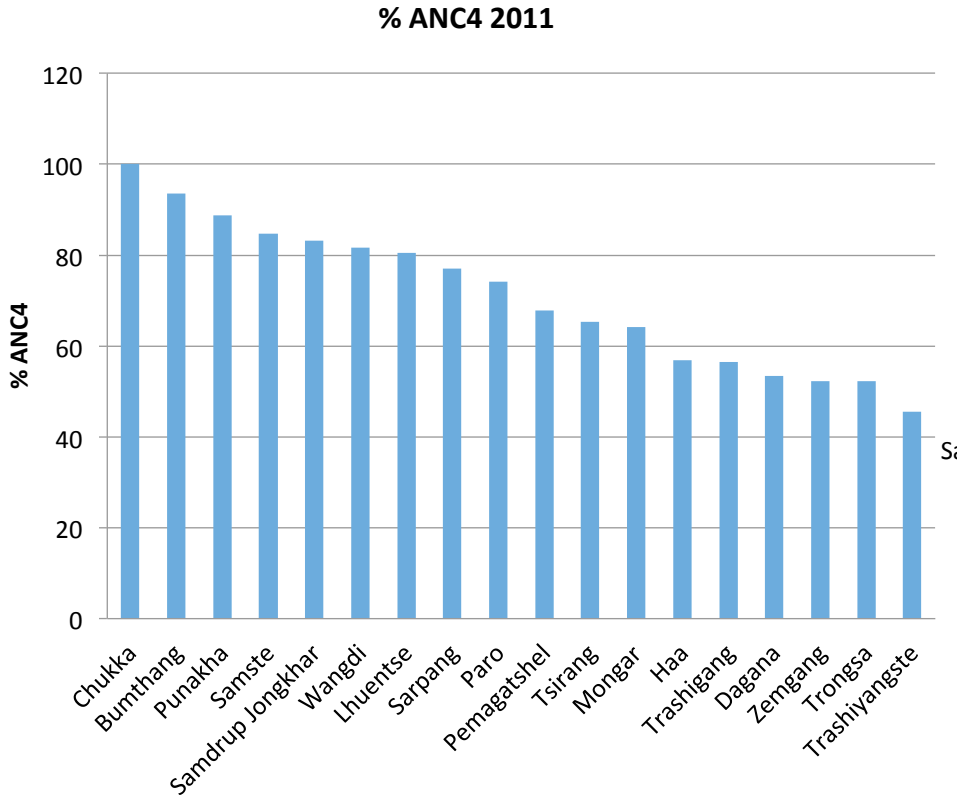
Population Coverage	Data Source
% Districts with DPT3 Coverage > 80%	BHMIS 2011
% ANC 4	BHMIS 2011
% Delivery at Facility	BHMIS 2011
OPD Contacts	BHMIS 2011
% Pop living within 3 hours walk of Facility	BHMIS 2012
% Women aged 20–60 screened by pap smear at least once	BHMIS 2011, 11th 5 Year Plan
Service Availability	
% Facilities providing essential package according to standards *	Estimate only
% Dzonhkhags > 2.3 staff per 1000 pop	HRD Data Base
% Dzongkhags with stock out of 10 essential drugs or more in last 12 months	BHMIS Report
Patient Satisfaction rate at Facilities	11th 5 Year Plan
National OPD waiting time from 9 to 11 am	11th 5 Year Plan
Financial Protection	
% out of pocket expenditures on health **	NHA 2010
Health expenses as % of nominal GDP	NHA 2010
Govt. Health Expenditure as % of Total Govt. Expenditure	NHA 2010

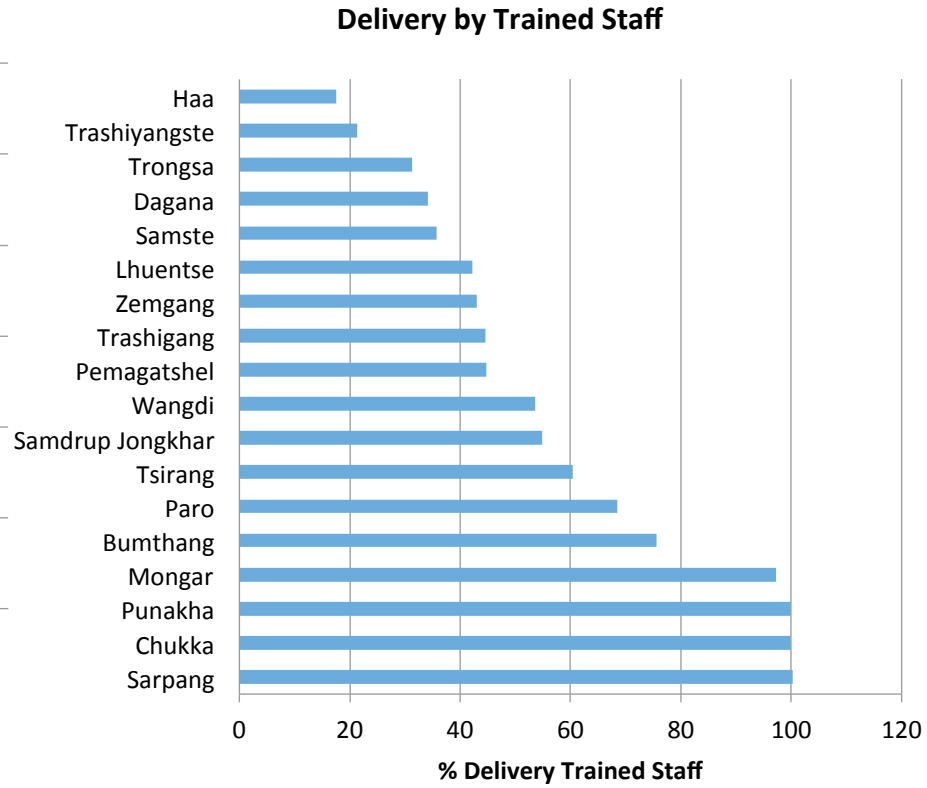
Findings 2: Status of UHC

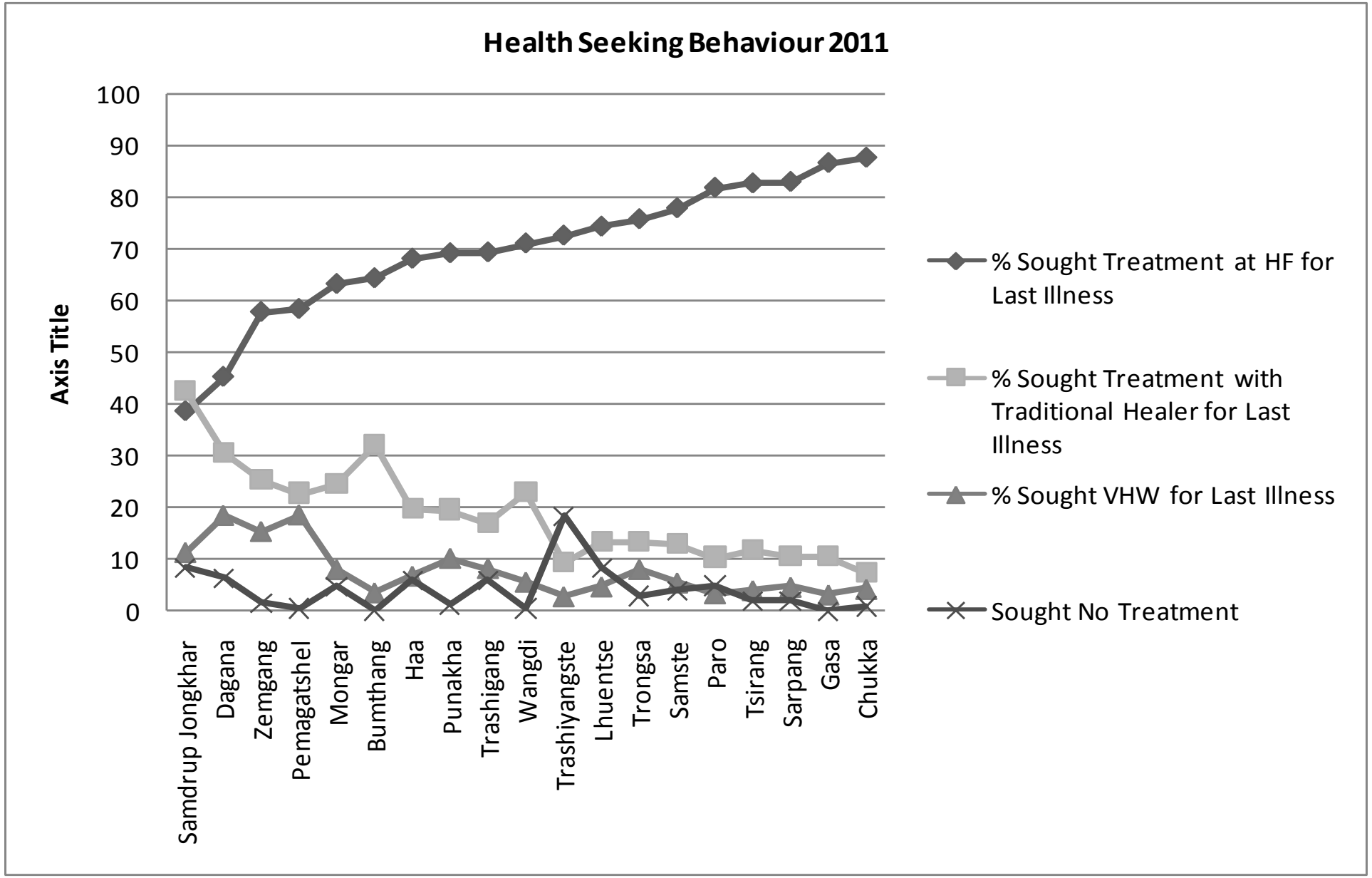
Dimension 1: POPLUATION COVERAGE



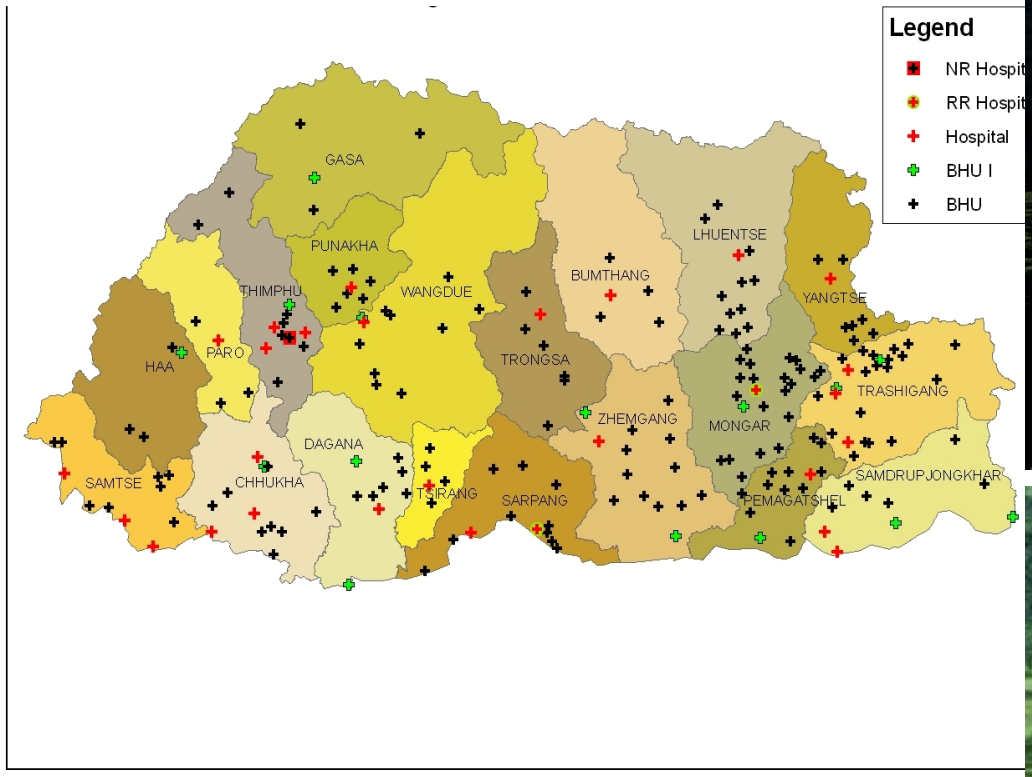


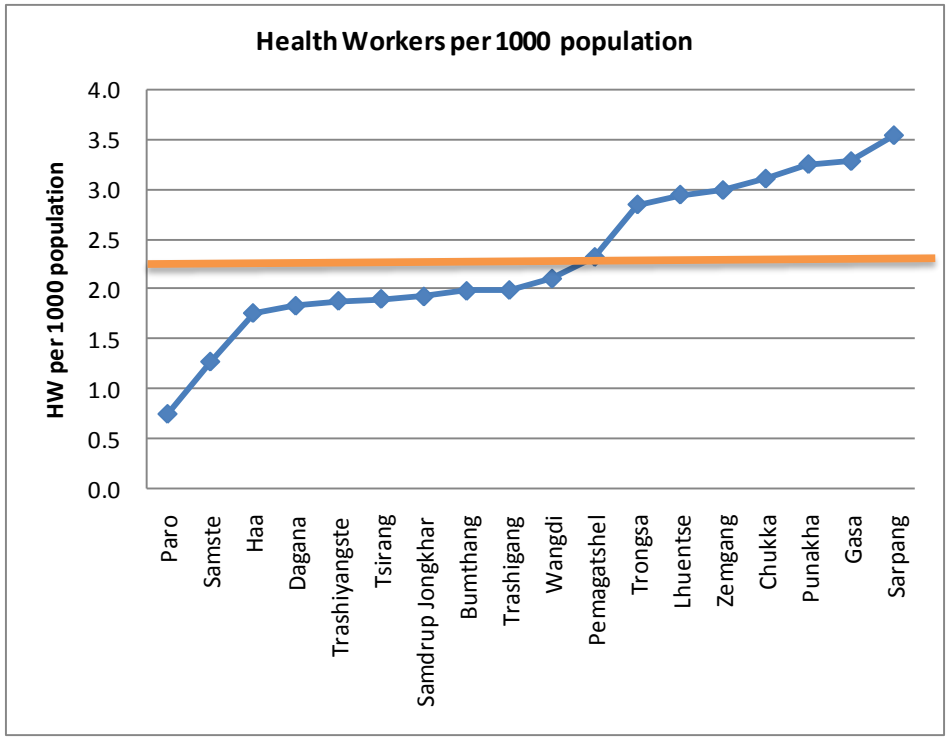

% ANC4 2011
% ANC4
120
100
80
60
40
20
0
Chukka
Bumthang
Punakha
Samste
Samdrup Jongkhar
Wangdi
Lhuentse
Sarpang
Paro
Pemagatshel
Tsirang
Mongar
Haa
Trashigang
Dagana
Zemgang
Trongsa
Trashiyangste

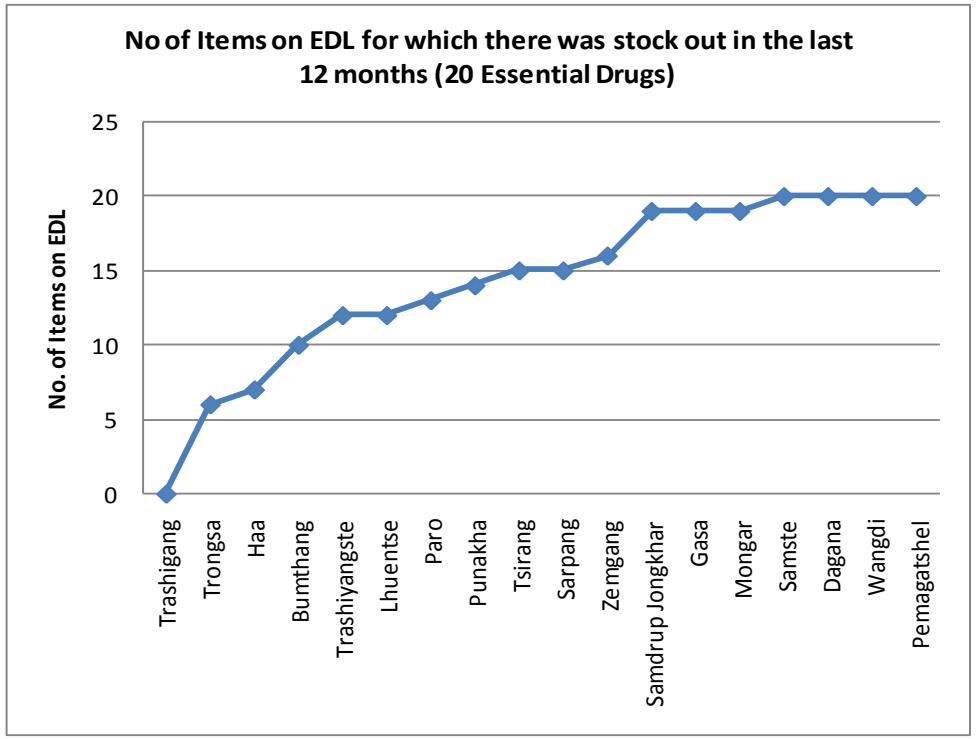

Delivery by Trained Staff
Haa
Trashiyangste
Trongsa
Dagana
Samste
Lhuentse
Zemgang
Trashigang
Pemagatshel
Wangdi
Samdrup Jongkhar
Tsirang
Paro
Bumthang
Mongar
Punakha
Chukka
Sarpang
0
20
40
60
80
100
120
% Delivery Trained Staff


Health Seeking Behaviour 2011
Axis Title
100
90
80
70
60
50
40
30
20
10
0
Samdrup Jongkhar
Dagana
Zemgang
Pemagatshel
Mongar
Bumthang
Haa
Punakha
Trashigang
Wangdi
Trashiyangste
Lhuentse
Trongsa
Samste
Paro
Tsirang
Sarpang
Gasa
Chukka
% Sought Treatment at HF for Last Illness
% Sought Treatment with Traditional Healer for Last Illness
% Sought VHW for Last Illness
Sought No Treatment

Dimension 2: SERVICES COVERAGE



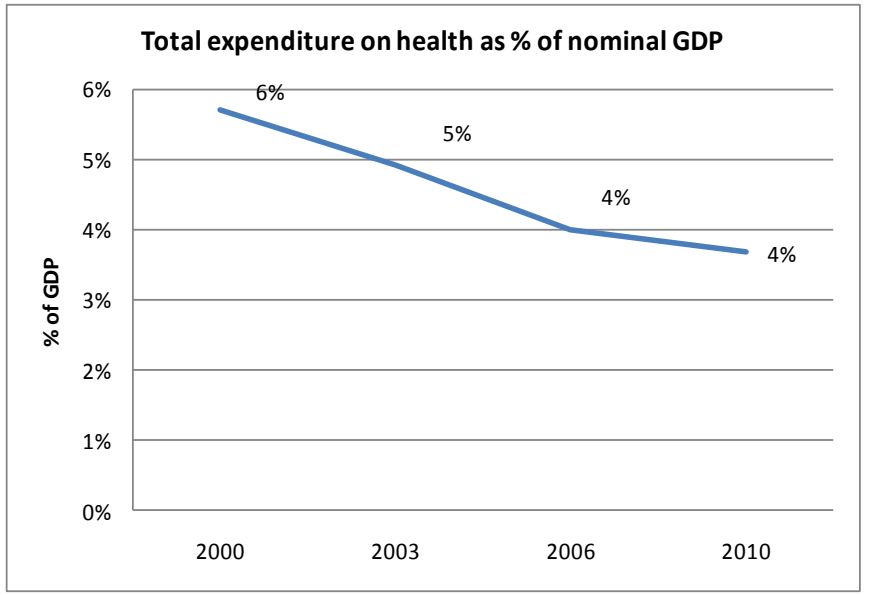




50% of Dzonkhags (9 out of 18) have staff population ratios above 2.3 per 1000, with very low ratios in Paro and Samtse. Only 1 Dzonkhags had no stock out of the priority list of 20 essential medicines in 2011

Essential services package

Dimension 3: FINANCIAL PROTECTION



Observations: There is wide variation in the amount spent in the last month on the last illness, with an overall average of under 500 Nu (annual Health Survey 2011). There has been a decline in the share of GDP for health over recent years, although per capita investment overall has risen (NHA data).

- Predominantly state funded (over 80%), 11.8% OOP
- 4% of GDP (over 6% in early 2000s)

	Seventh	Eighth	Ninth	Tenth
Five Year Plan Allocation to Health	**6.7%** 1035.51	**7.3%** 2904.11	**6.4%** 4,505.835	**5.86%** 8,570.304

“UHC index”

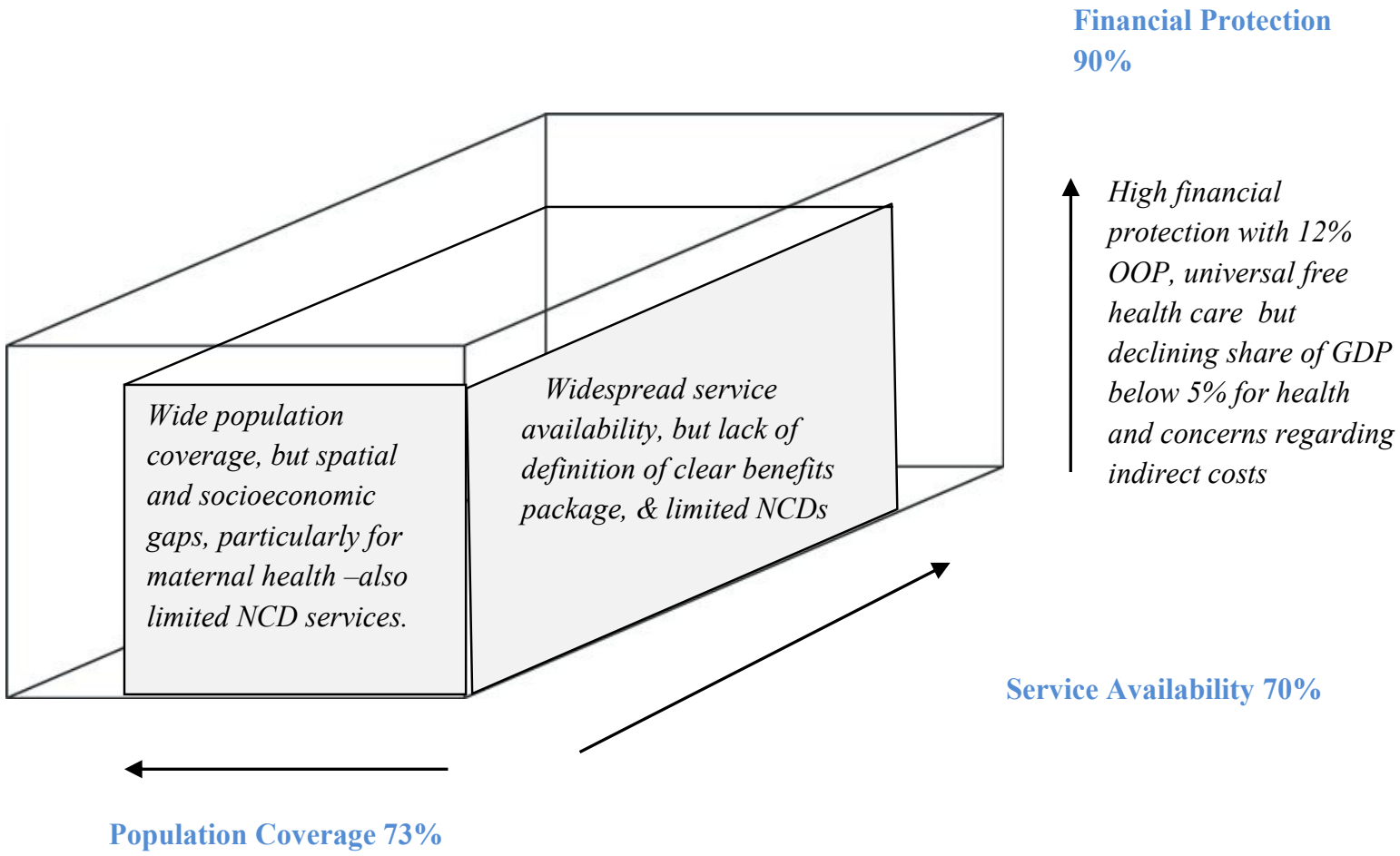
- A *UHC index* was created through allocation of weights to indicators. All indicators were apportioned an equal weighting, except for the three.
  - OPD utilization
  - Essential package
  - UHC Policy/legislation

- Index scores were arrived at by multiplication of the weighting by the most recent coverage assessment for the specific indicator (for example ante natal care coverage has an index result of .77, based on a weighting of 1 for this indicator and the most recent administrative coverage report of 77%).

Population Coverage	Data Source	Indicator Result 2011	Weight	Score
% Districts with DPT3 Coverage > 80%	BHMIS 2011	19 out of 20 Dzongkhags	1	0.90
% With 4 antenatal care visits	BHMIS 2011	77%	1	0.77
% Delivery at Facility	BHMIS 2011	63%	1	0.63
Out patient department contacts	BHMIS 2011	3.1 (if > 3 per capita = 2)	2	2.00
% Pop living within 3 hours walk of Facility	BHMIS 2012	76%	1	0.76
% Women aged 20–60 screened by pap smear at least once	BHMIS 2011, 11th 5 Year Plan	25%	1	0.25
TOTAL			7	5.31
RESULT				**76%**
Service Availability				
% Facilities providing essential package according to standards	Estimate only	80% *	5	4.00
% Dzonhkhags > 2.3 staff per 1000 pop	HRD Data Base	8 out of 19 Dzongkhags	1	0.42
% Dzongkhags with stock out of 10 essential drugs or more in last 12 months	BHMIS Report	14 out of 19 Dzongkhags	1	0.26
Patient Satisfaction rate at Facilities	11th 5 Year Plan	85% with target of 95%	1	0.85
National OPD waiting time from 9 to 11 am	11th 5 Year Plan	Maintain at 23 minutes	1	1.00
TOTAL			9	6.53
RESULT				**73%**
Financial Protection				
% out of pocket expenditures on health **	NHA 2010	NHA Estimate	1	0.90
Health expenses as % of nominal GDP	NHA 2010	3.68% (target of 5%)	1	0.74
Govt. health expenditure (GHE) as % of total govt. expenditure (THE)	NHA 2010	5.6% (target of 8%)	1	0.70
Constitutional/policy Commitment to UHC	Health Policy 2010	Yes	2	2.00
TOTAL			5	4.64
RESULT				**87%**

A visualization of the “UHC index”

Identifiable service availability and population coverage gaps, and requirement for ongoing careful monitoring of financial protection.



Thanks