Comparative analysis of quality of care at different levels of health care in Nigeria
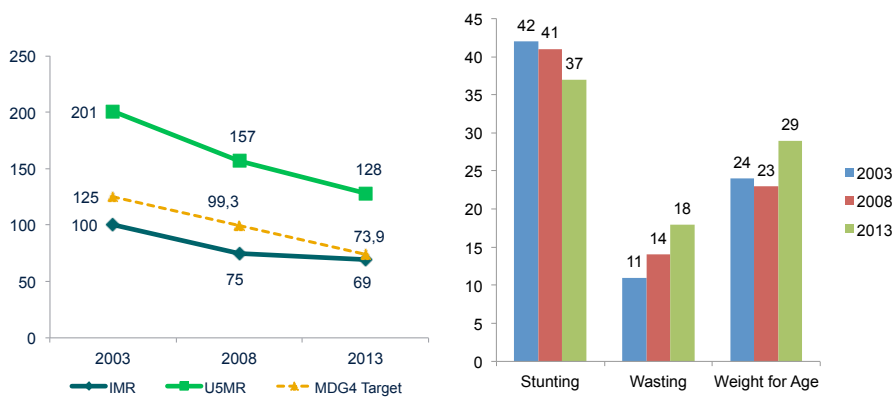
- 2016 AFHEA CONFERENCE

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Opeyemi Fadeyigbi*, Solomon Adebayo,
Oluwole Odutolu, Bolanle Banigbe,
Benjamin Leovinsohn and Fatimah
Mustapha**,
2016 AfHEA Morocco 2016

Mixed results on health impact
U5MR decline but no change on nutrition

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Quality of Care is Problematic as documented by the Service Delivery Indicators (SDI) Survey (2013)

- Nearly 30% health worker absenteeism
- Most health workers do NOT have the knowledge needed to treat important diseases

- Average public facility sees **1.5 patients/day**

- Essential drugs are mostly NOT available

- No correlation between drug supply & patient load

- Nigeria compares poorly to other countries where SDI has been carried out in Africa

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UHC is Sustainable Development Goal 3

SDG 3.8 "Achieve **universal health coverage**, including **financial risk protection**, access to **quality essential health-care services** and access to safe, effective, quality and affordable essential medicines and vaccines for all"

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Service Delivery Indicator

- The Service Delivery Indicators (SDI) provide a set of metrics for benchmarking service delivery performance in health and education in Africa.

- The overall objective of the indicators is to gauge the quality of service delivery in primary education and basic health services.

- The indicators enable governments and service providers to identify gaps and to track progress within and across countries over time

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Objectives

- To measure and compare the quality of care provided at health facilities

- To identify factors that significantly contribute to the quality of health care at different levels

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Definition of key terms/measures

- **Providers' efforts**
  - defined as absence rate
  - Measured by observing the presences/absence of a maximum of 10 randomly selected health workers at the facility during enumerator's unannounced visit.

- **Providers' knowledge**
  - Measured by diagnostic accuracy
  - Adherence to guideline

- **Input i.e. what providers work with**
  - Infrastructure – electricity, water and sanitation (toilet)
  - Equipment – thermometer, stethoscope, sphygmomanometer, any weighing scale
  - Drugs – proportion of priority drugs for women and children that are available and unexpired at the facility

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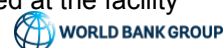
Analytical framework

Quality of health care

- Providers' efforts
- Providers' knowledge
- Input (what providers work with)

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Methodology

- Independent variables include regional characteristics, health service characteristics, and health worker characteristics

- Outcome variable – quality of care - constructed as average sum of the scores for the 3 elements of quality of care

- The composite scale of QoC has a range from 0-100, and used as the dependent variable for the for the linear regression model
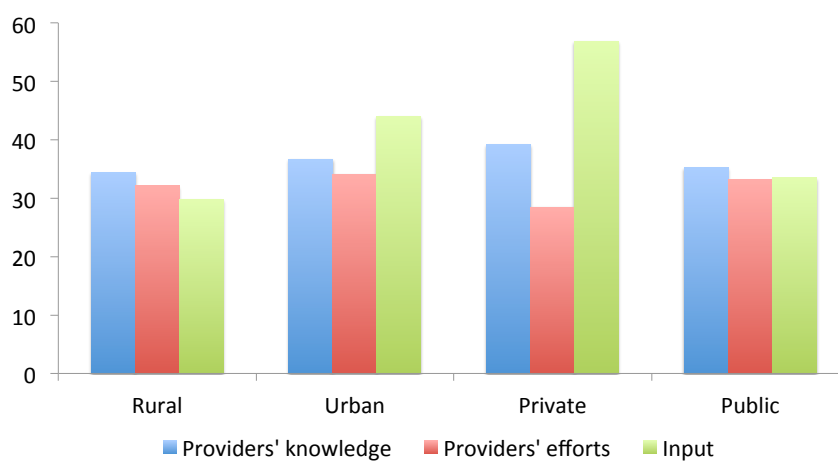
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Findings- QoC by facility type

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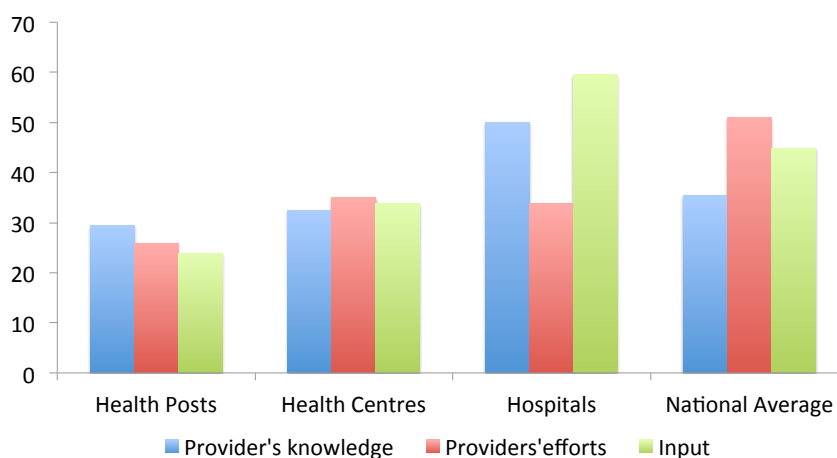
QoC by location, facility ownership

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Mean composite scores for dimensions of quality by facility type

	Providers' knowledge		Providers' efforts	Input		
	Adherence	Diagnostic	Absence	Infrastructure	Equipment	Drugs
Health posts	28.8	30.0	25.87	5.0	21.4	45.4
Health centres	30.1	34.9	35.08	23.2	19.5	59.0
Hospitals	39.9	60.3	33.86	53.3	49.4	75.8
p-value	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Private facilities	33.8	44.7	28.46	53.8	47.5	69.0
Public facilities	31.7	38.7	33.24	20.9	22.1	57.6
p-value	**0.050**	**0.001**	**0.100**	**0.000**	**0.000**	**0.000**
Rural	31.9	37.0	32.10	15.8	17.1	54.9
Urban	31.7	41.6	34.11	34.5	34.2	63.4
p-value	**0.644**	**0.000**	**0.191**	**0.000**	**0.000**	**0.000**

UP

Linear Regression Coefficients for Quality of Care

	β	Standard error	p-value
Health posts	-0.151	0.014	0.000
Health centre	-0.098	0.012	0.000
Hospitals	RC		
Public facilities	RC		
Private facilities	0.069	0.018	0.000
Rural	-0.035	0.009	.000
Urban	RC		

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Quality of care by facility ownership and type

	Private facilities			Public facilities		
	Health posts	Health centres	Hospitals	Health posts	Health centres	Hospitals
Providers' competence	28.56	35.48	36.20	35.08	33.07	34.06
Providers' effort	22.73	27.75*	30.85	25.94	35.59*	34.56
Input	18.18	51.96***	70.84***	24.07	32.56***	56.99***
Index of QoC	22.40	42.56***	51.55**	28.32	33.30***	45.88**
	***=p<0.001, **=p<0.00, *=p<0.05					

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Implications

- Quality of care varies by level, **worse at levels that are closest to the people (PHCs, Rural)**

- The very low mean score on provider competence across board suggests that **capacity building is a cross cutting issue**

- **Inputs contribute significantly to overall composite score of QoC at private hospitals**. This could suggest a disproportionately greater focus on input at private hospitals that are not matched with efforts and competence

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Limitations of the Study

- The SDI sample is not nationally representative. Hence, caution should be taken when interpreting the results

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