

Health Services that Deliver for Newborns

Effective coverage of essential in-patient newborn services in Nairobi County

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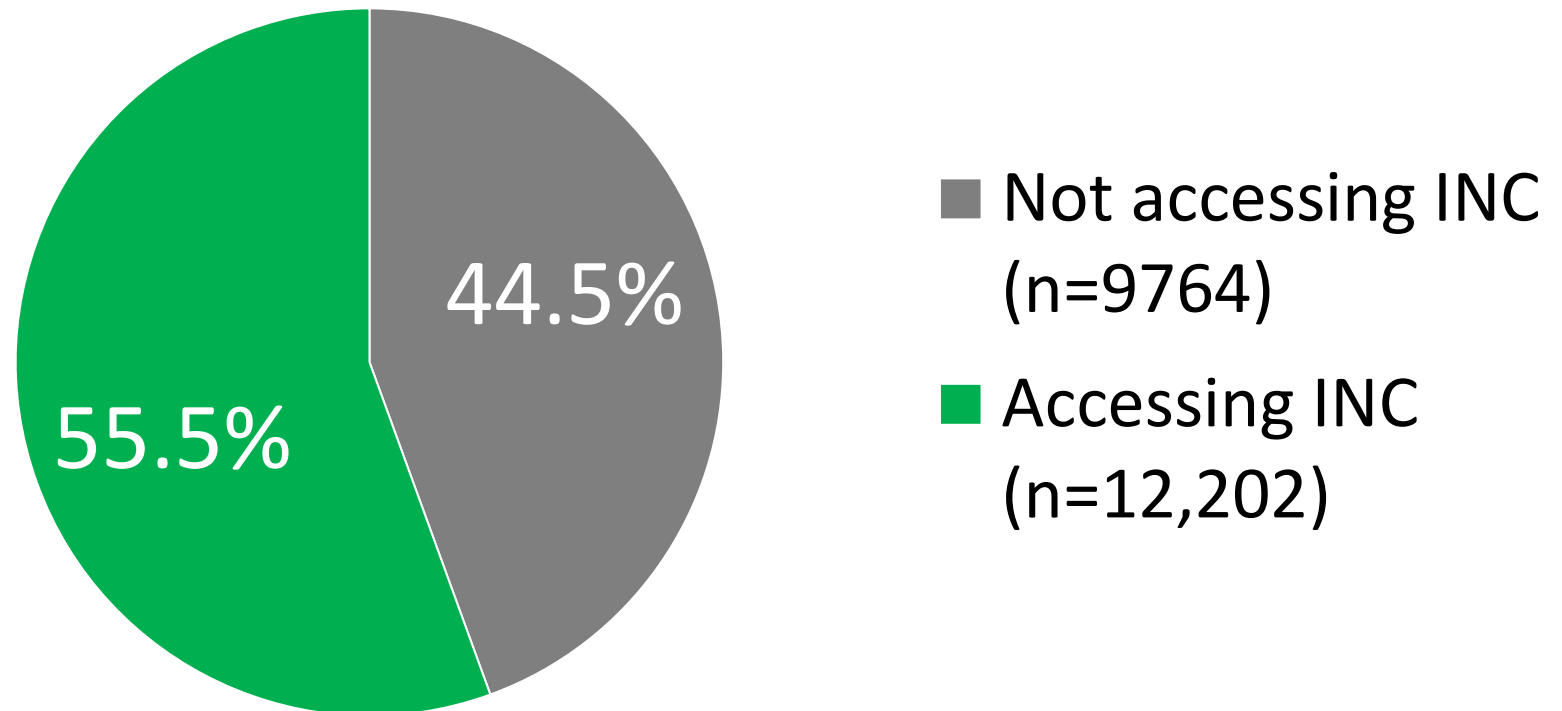
Nairobi Newborn Study

- i. Estimating the need
- ii. Identify facilities
- iii. Estimate admissions
- iv. Structural assessment
- v. Examine process of care
- vi. Assess knowledge of nurses



What is the need for neonatal inpatient care?

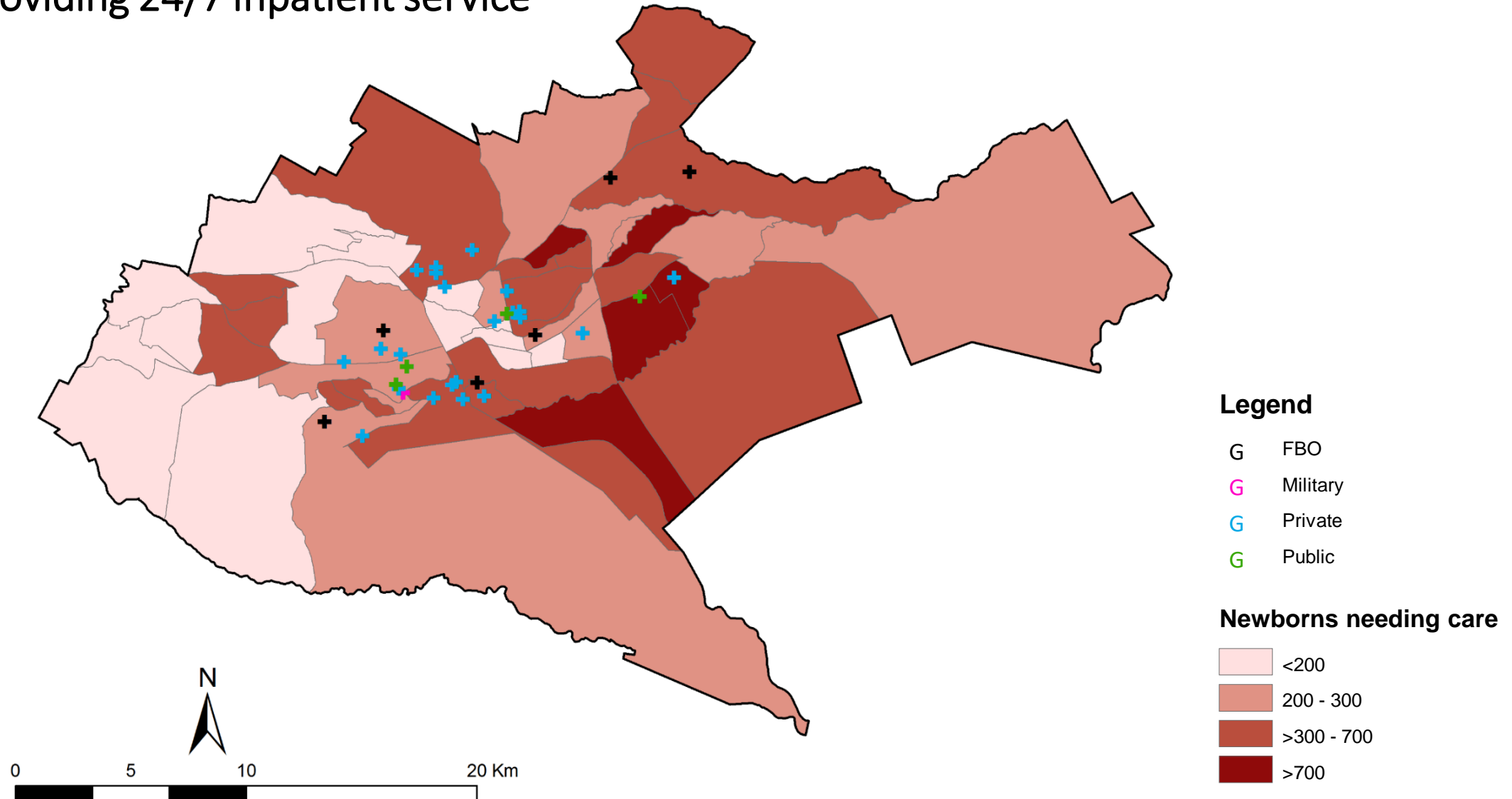
- ❑ Using population projections to 2015 we estimate the need for Inpatient Neonatal Care (INC) services during study period (mid-2014 to mid-2015) = **21,966**
 - ❑ 18% of all live births will require inpatient newborn care
- ❑ **12,202 admissions** were registered across 31 facilities in the same period



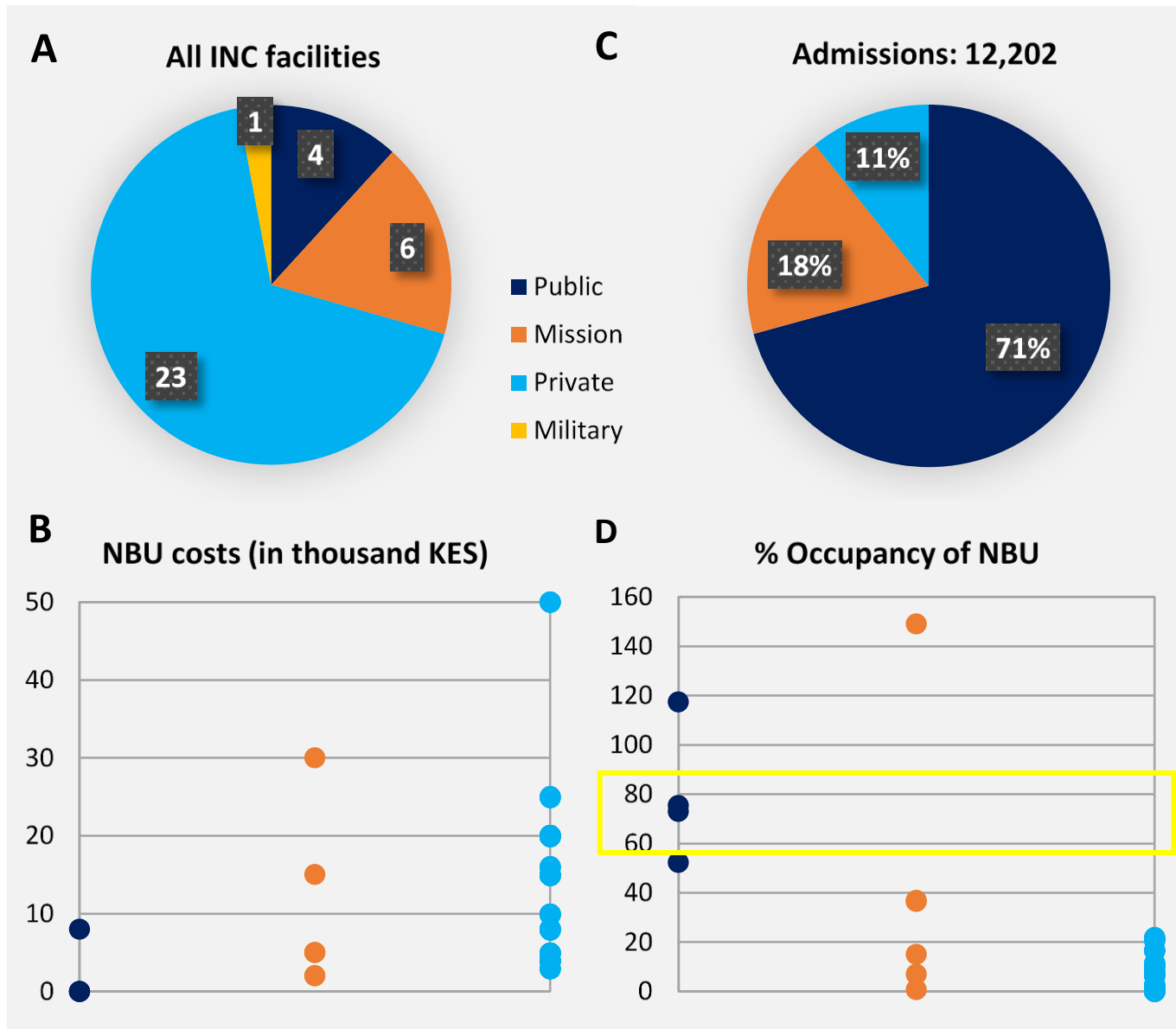
What is the gap between need and provision of basic *effective* services?

Need vs Access:

34 facilities providing 24/7 inpatient service



Where is inpatient neonatal care (INC) provided?



34 facilities

1 excluded & 2 declined

→ **31 participated (30 with maternity)**

A: Facilities providing 24/7 inpatient newborn services (INC facilities) in Nairobi City County.

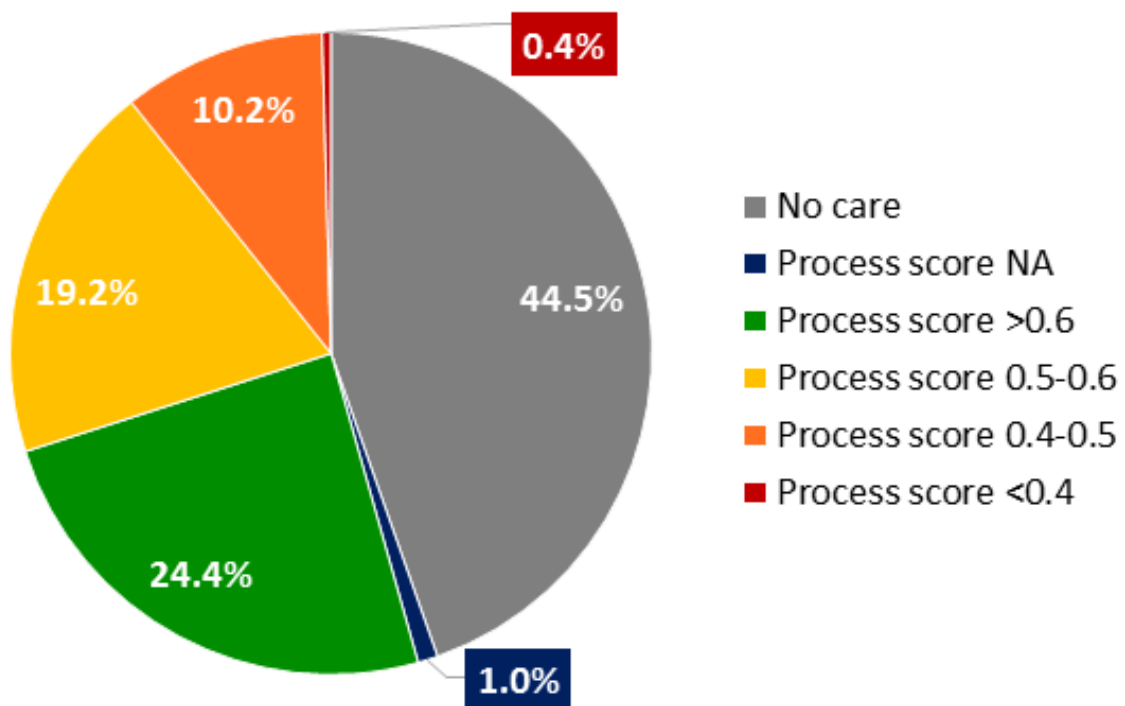
B: Annual (1st July 2014 – 30th June 2015) admissions among 31 INC facilities.

C: Cost of one overnight accommodation in a newborn unit (NBU) across 28 INC facilities.

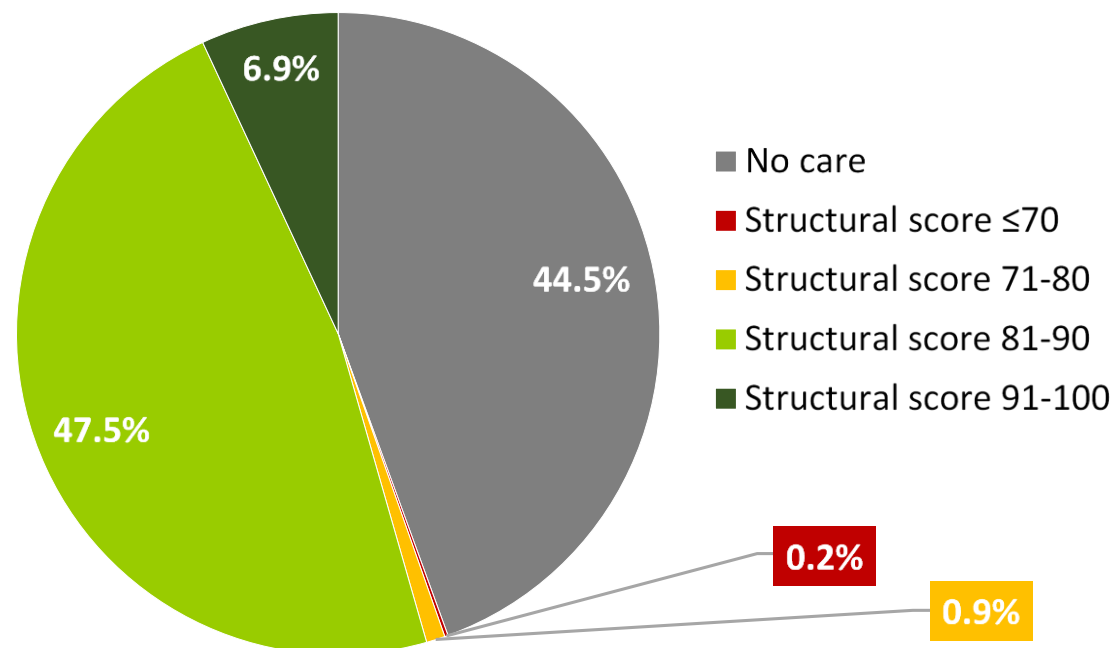
D: Percentage occupancy of NBUs across 29 INC facilities.

What quality of care is being accessed?

Newborns requiring inpatient care

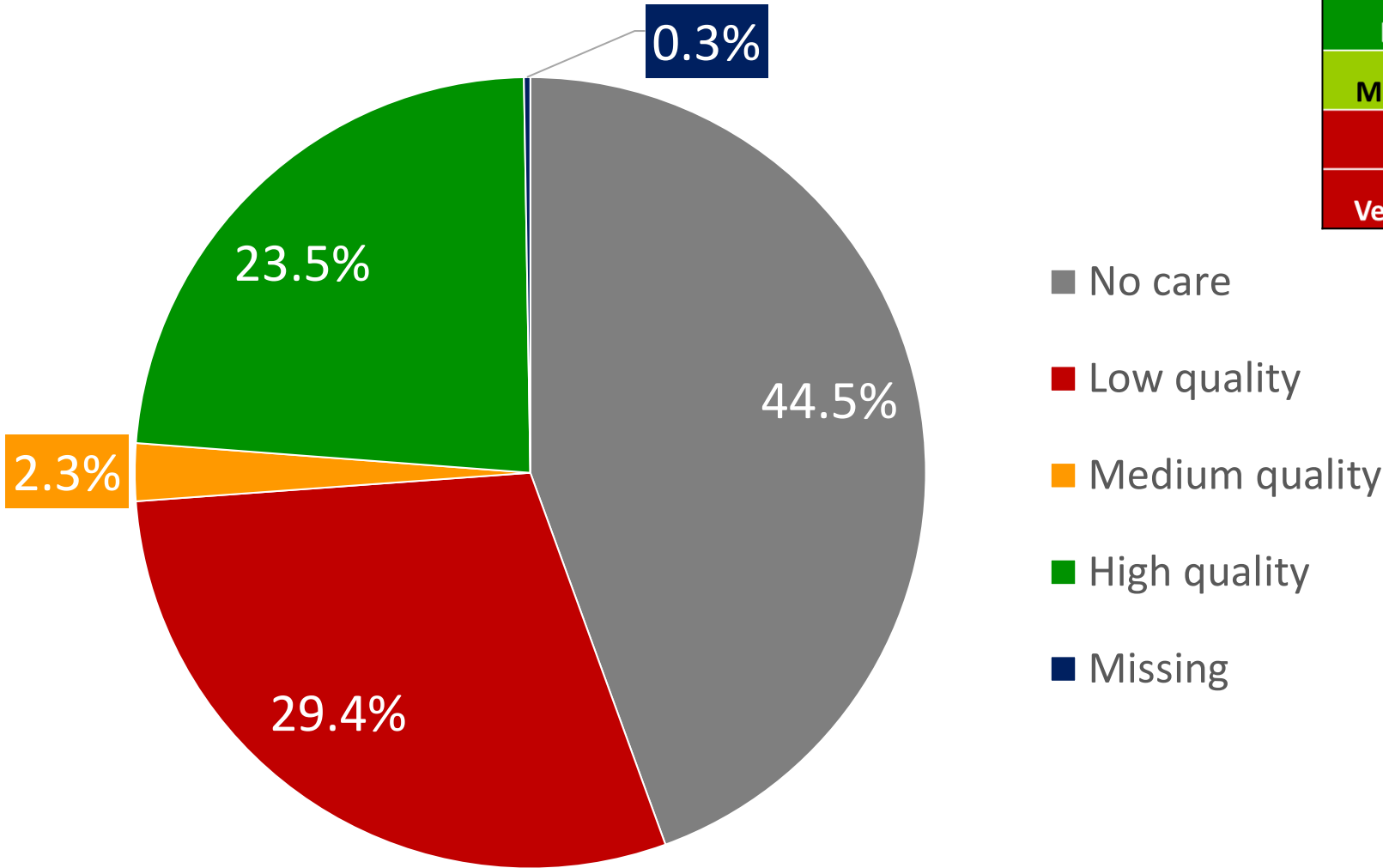


Newborns requiring inpatient care (n=21,966)



EFFECTIVE COVERAGE

	Structure	Process	Knowledge
High	91-100	>0.6	0.8-1
Medium	81-90	0.5-0.6	0.7-0.8
Low	71-80	0.4-0.5	0.6-0.7
Very low	≤70	<0.4	<0.6



Quality of care received by all babies estimated requiring inpatient care

A major missing piece

Nursing care – how is the planned care delivered

- Continuous, consistent high quality care
- Effective delivery of **every** intervention **plus** prevention of harm
- Promotion of family centred care

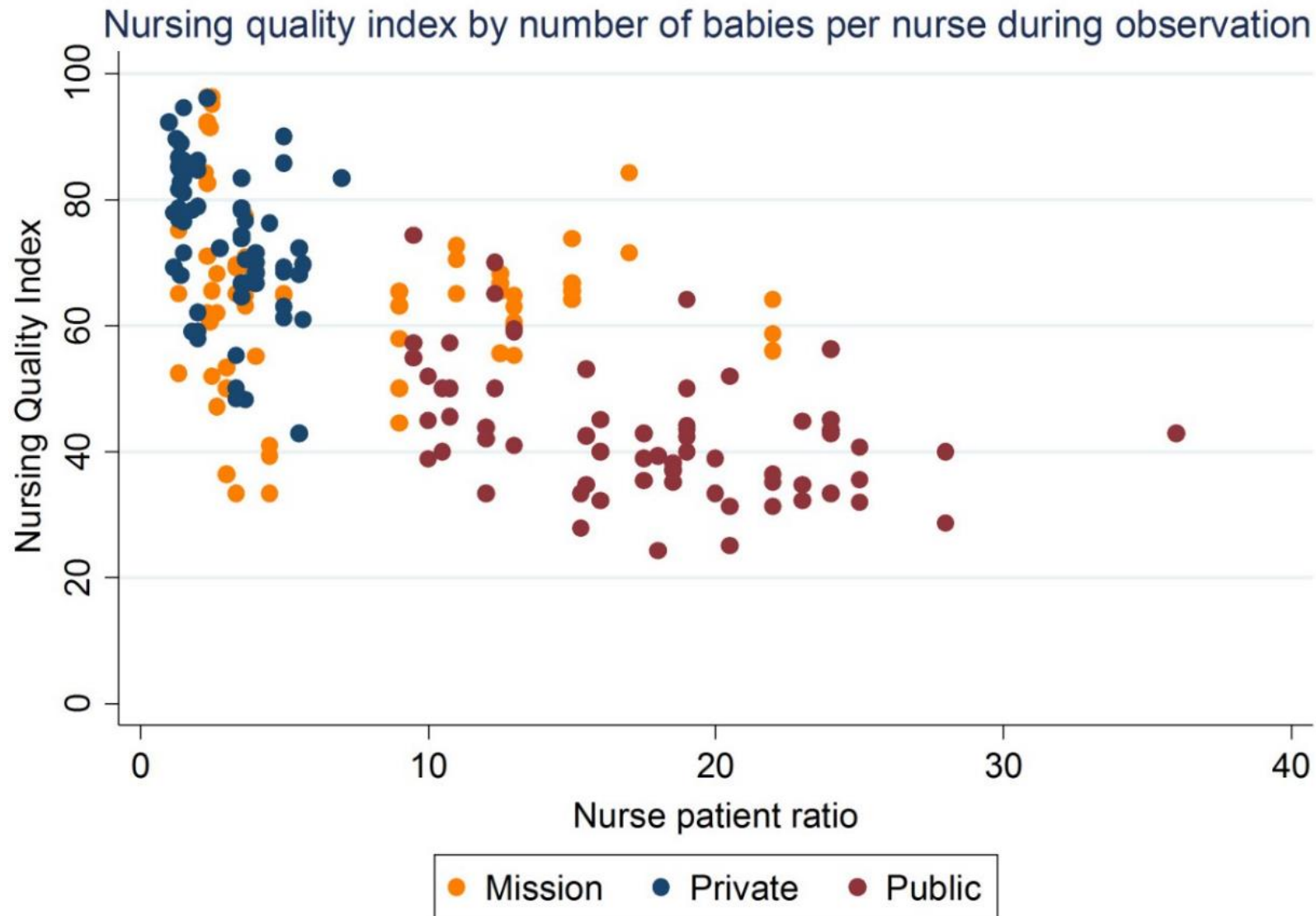
Quantifying nursing care
delivered in newborn units:
A direct observational study



6 hospitals in Nairobi county with >100 newborn admissions annually

Sectors: Public, Private-for-profit, private-not-for-profit

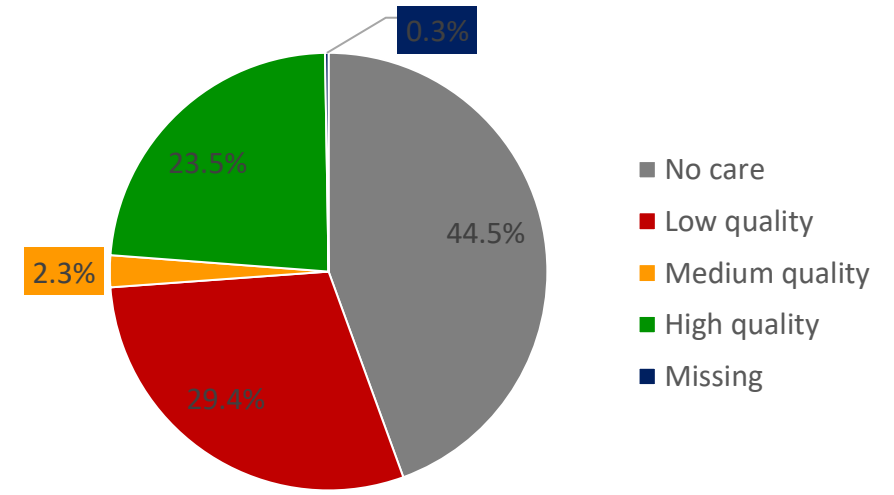
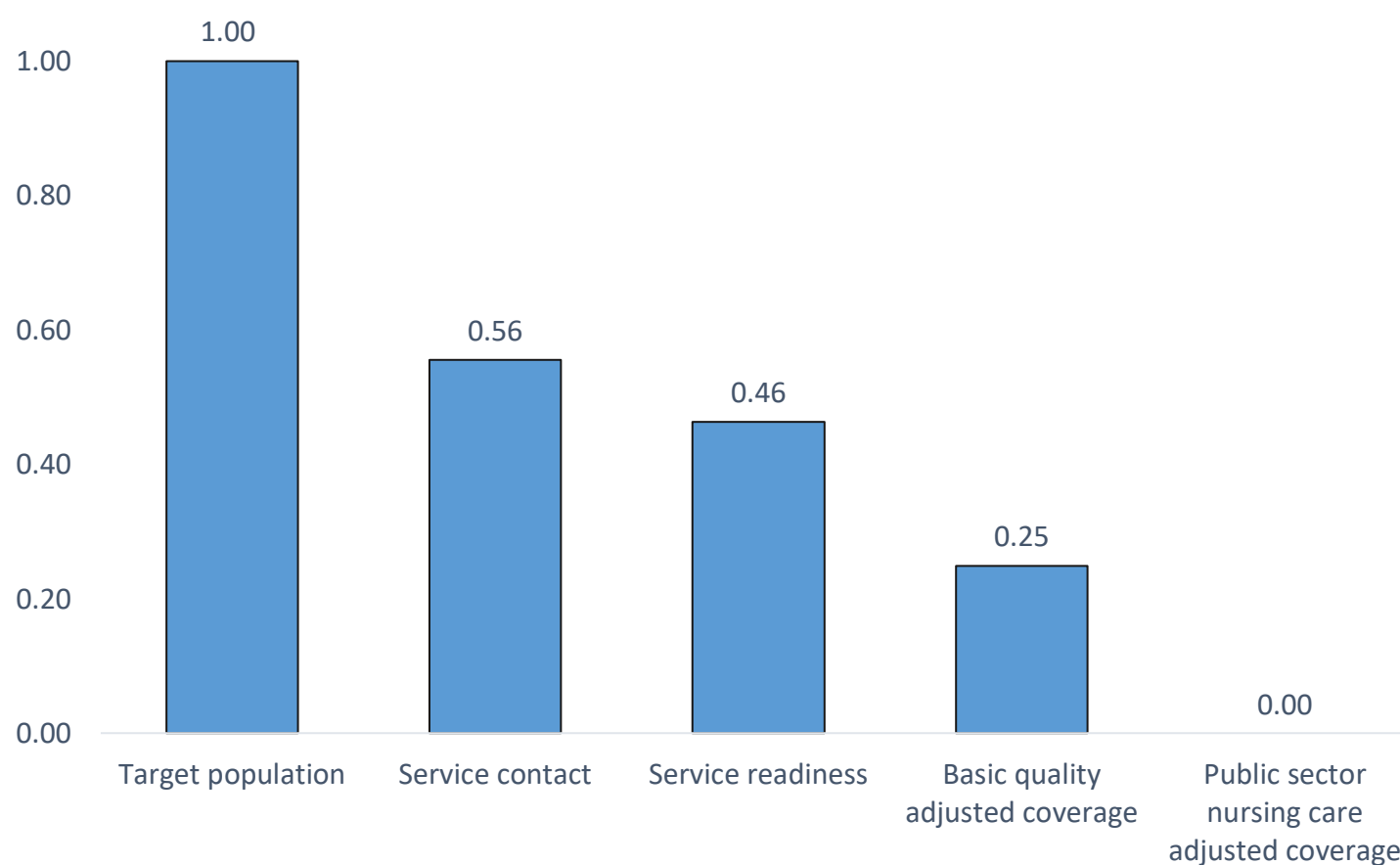
Implications of nurse staffing on nursing quality of care



- In the public sector, none of the babies received 80% or more of the required nursing care

EFFECTIVE COVERAGE – Nursing care adjusted

Cascade of coverage with and quality of essential inpatient care for sick newborns



When you take into account nursing care provision in the public sector (provides over 70% of care) effective coverage goes to 0%

Summary

- Almost 1 in 5 live births requires inpatient neonatal care in NCC
- There is poor effective coverage of essential inpatient neonatal services with barriers to care being:
 - Inadequate provision - about 45% of newborns have no access
 - Quality – only 25% of newborns access high quality care and 0% if nursing-adjusted
 - Cost - only 4 public health facilities
 - Physical barriers – maldistribution of facilities with need
- Improving neonatal care requires an expansion of appropriate HRH especially nursing but also improvement on the availability of resources and quality provision
- To Improve access to high quality for all and especially the poor, the county should consider
 - Upgrading some facilities to provide standard of care category neonatal care
 - Strengthening existing hospitals to reliably provide intermediate category of care
 - Establish a country wide referral strategy and system – equity and priorities



Funders: **Joint Health Systems** **Research Initiative**



Stakeholders

- **KEMRI-Wellcome Trust team**
- **Nurses Expert Group**
- **HSD-N Advisory Group**
- **Participating hospitals**
- **Mothers and Nurses that consented to the study**

References

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