Integra

Strengthening the evidence base for integrating HIV and SRH services

How does integration impact the costs and efficiency of delivering HIV Services? A summary of baseline costs in Kenya and Swaziland

International AIDS Economic Network
July 20 - 21, 2012

Carol Dayo Obure[1], Anna Vassall [1], Sedona Sweeney [1], Christine Michaels [1], Fern Terris-Prestholt [1], Charlotte Watts [1] & the Integra Research Initiative

[1] London School of Hygiene and Tropical Medicine

IPPF International Planned Parenthood Federation

Population Council

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Background

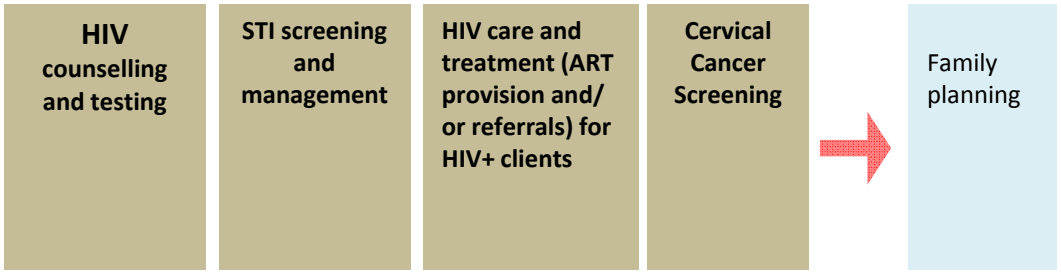
- The integration of HIV and sexual reproductive health services (SRH) aims to improve the delivery of both HIV &SRH services
- However, despite a well articulated rationale for integration, there is scarce evidence on the costs and potential efficiency gains of integrated service provision
- Integration of HIV and SRH services may yield many forms of efficiency gains:
  - Economies of scale:
    - Increased coverage of services
    - better utilization of existing capital and human resources
    - shared management & procurement systems that yield volume cost savings
  - Economies of scope:
    - shared use of common infrastructure, overheads & certain 'indivisible' operational costs such as specialized equipment and specialized staff.

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

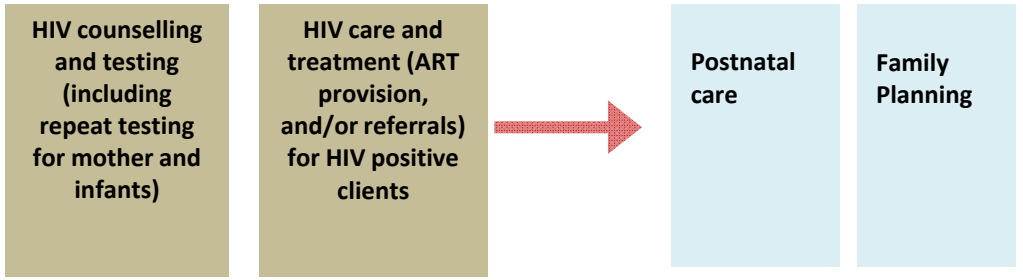
Integra Study

Aim - generate evidence on **impact, acceptability, quality & costs** of different models of integrated HIV and SRH service delivery

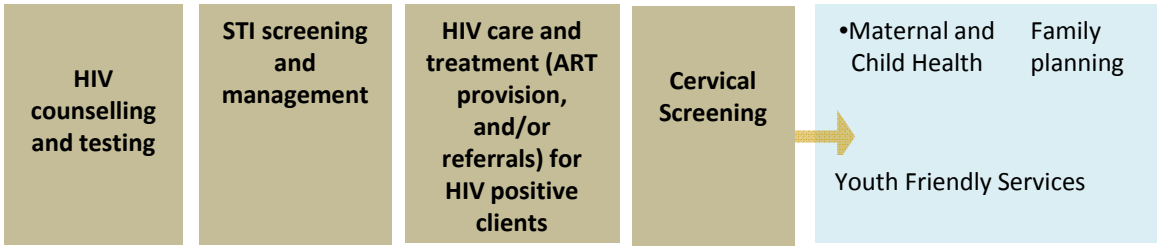
Model 1: Integrating HIV Services into Family Planning (Kenya)



Model 2: Integrating HIV services into postnatal care and family planning (Kenya and Swaziland)



Model 3 Integrated HIV and SRH services (IPPF clinics Kenya, Swaziland and Malawi)



Framework for Economic Analysis

- Full economic costing of 41 health facilities in Kenya and Swaziland

	Kenya (n=30)	Swaziland (n=11)
Provincial hospital	1	1
District hospital	5	-
Sub district hospital	6	-
Health centre	12	5
Public health unit	-	2
Private SRH clinic	6	2
HIV stand alone clinic	-	1

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Costing Methods

- Health provider perspective – excludes costs of clients accessing services
- Baseline full cost analysis for the financial year 2008/2009 (including overheads)
- Follow-up cost data collection – for 2010/2011
- Input components
  - Capital: building, equipment, staff training.
  - Recurrent: personnel salaries, drugs, diagnostics, supplies
- Activities costed
  - FP, PNC, STI management, HTC, cervical cancer screening, and HIV treatment/care.

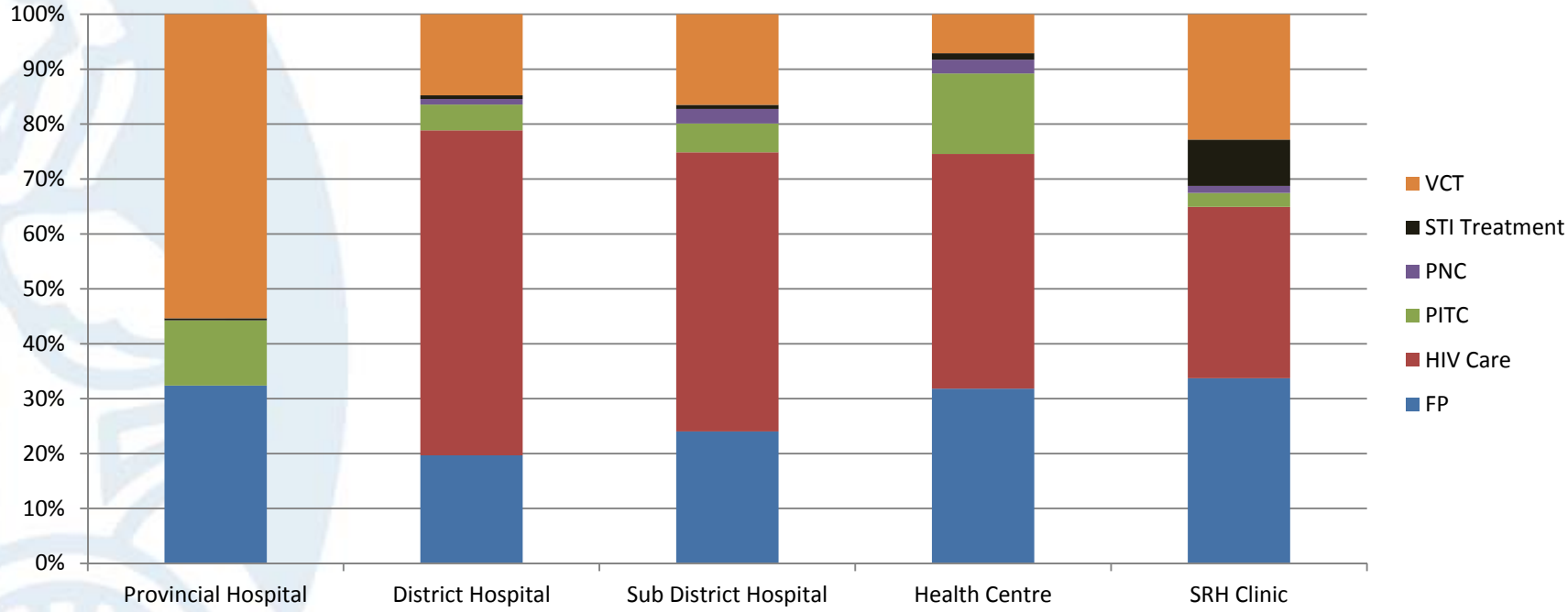
Costing methods (2)

- Data sources
  - Retrospective at the facility level
  - Process and output data collected from routine monitoring data
  - Key informant interviews conducted with staff to determine how staff time and resources are divided across services
- Unit cost per client visit estimated as the measure of technical efficiency
- Development of an 'integration index' – at baseline and following intervention activities
- Final analysis will combine with other data collected to explore determinants of costs & efficiency

Baseline costs of service provision

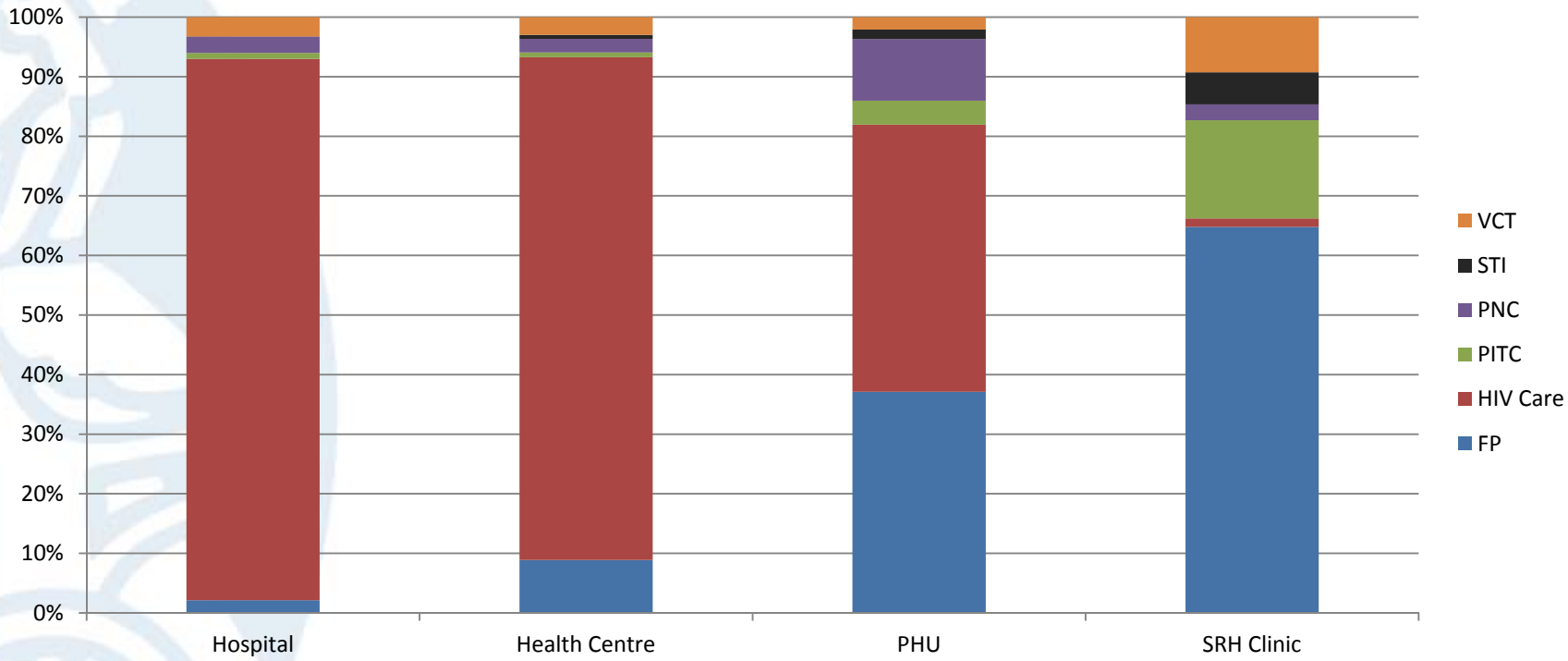
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Total costs by service type - Kenya



- With the exception of the provincial hospital where data on HIV care were not collected, HIV care and family planning services make up the largest proportion of service costs ranging from 65% in the SRH clinics to 79% of total costs in the district hospitals
- PNC & STI treatment costs are relatively low ranging from 1 to 3% and 1- 8% of the total HIV and SRH service costs respectively.

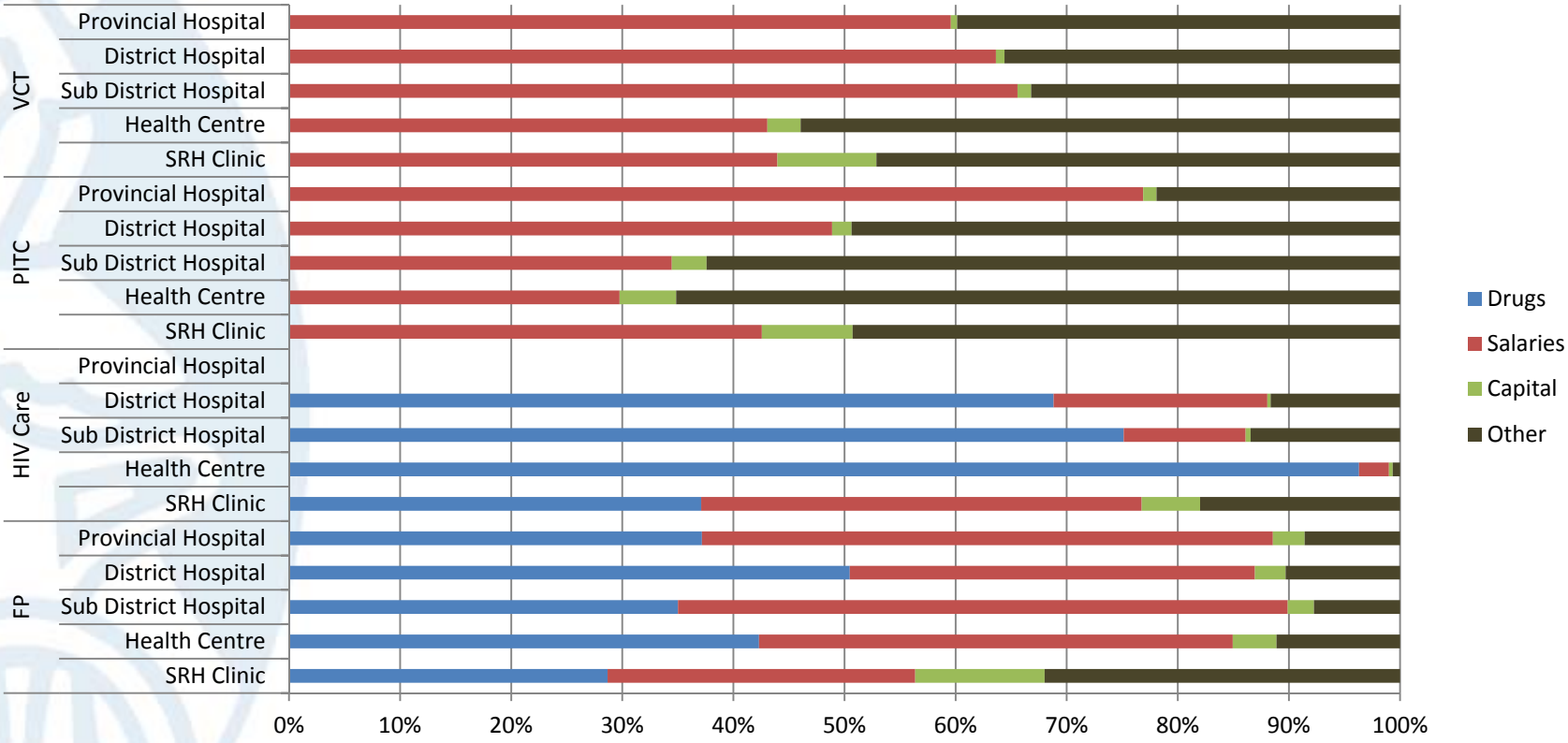
Total cost by activity - Swaziland



- HIV care takes a larger proportion of total costs ranging from 45% to 84% of total HIV and SRH service costs in the hospital, health centre, and PHU
- STI treatment costs are relatively low accounting for 1 to 5% of total costs

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

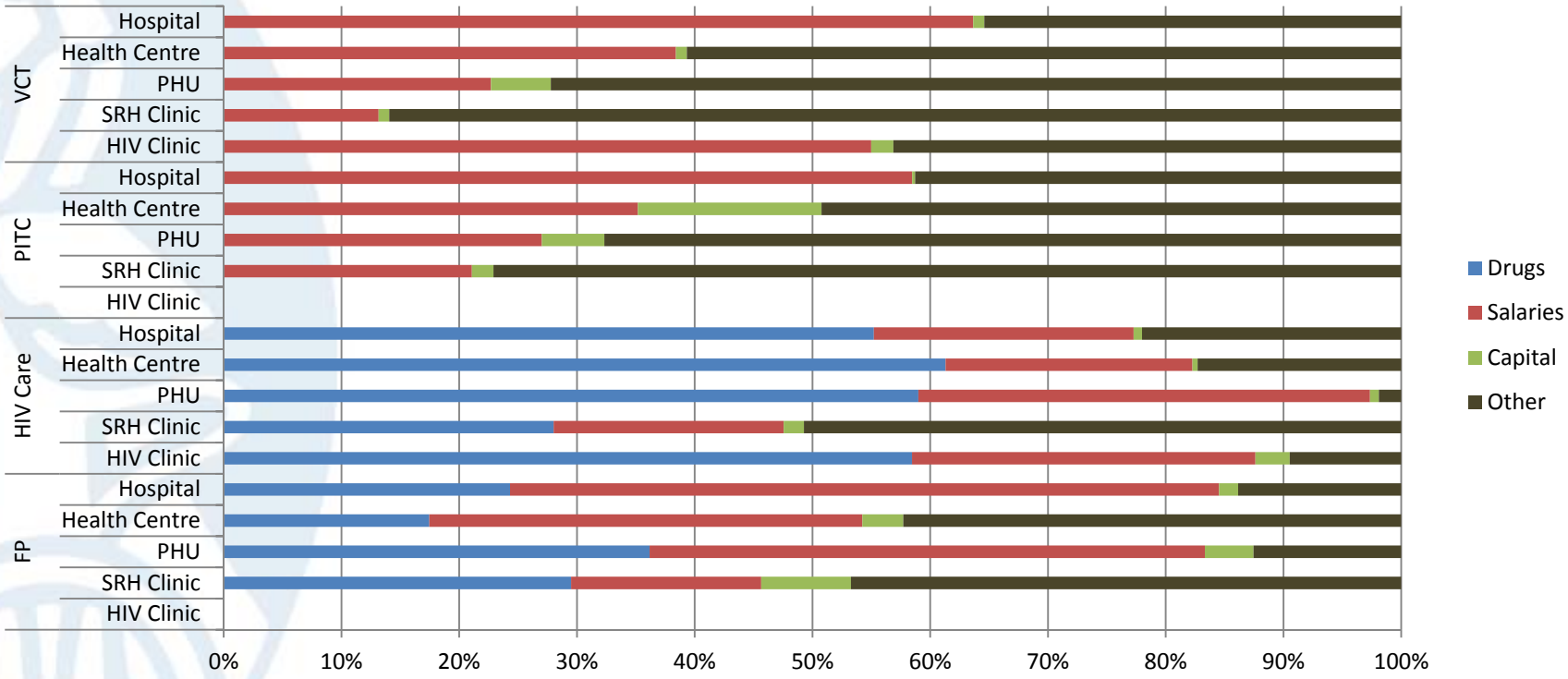
Total cost by input type - Kenya



- Staff salary costs make up a significant proportion of total costs for HCT and family planning services
- Drugs costs are a major cost driver for HIV care services
- Other costs which include diagnostics and supplies are high for HCT services

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

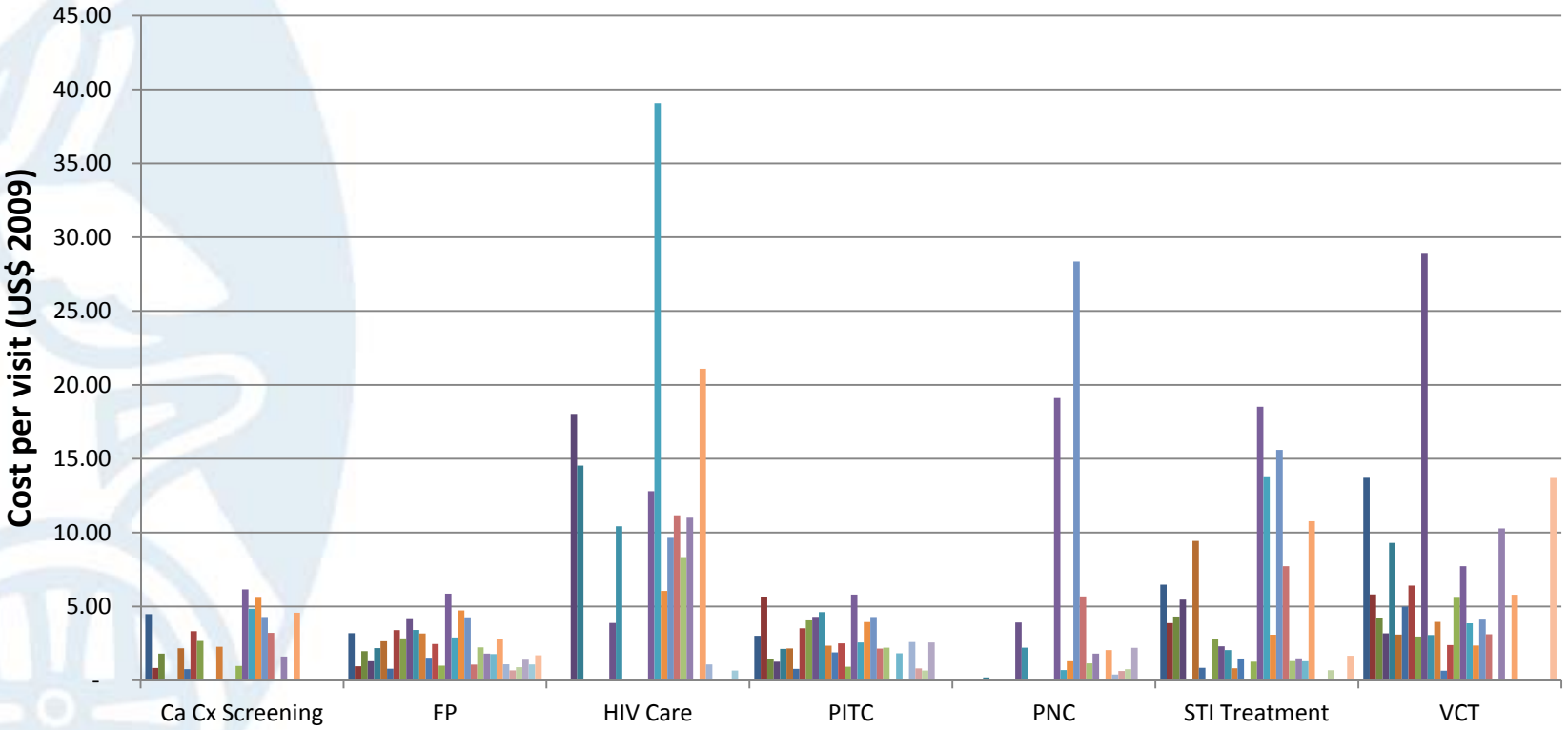
Total costs by input type-Swaziland



- Staff salary costs make up a significant proportion of total costs across all services (15% to 65%)
- Other costs which include diagnostics and supplies are high for both HCT services (35% to 85%)

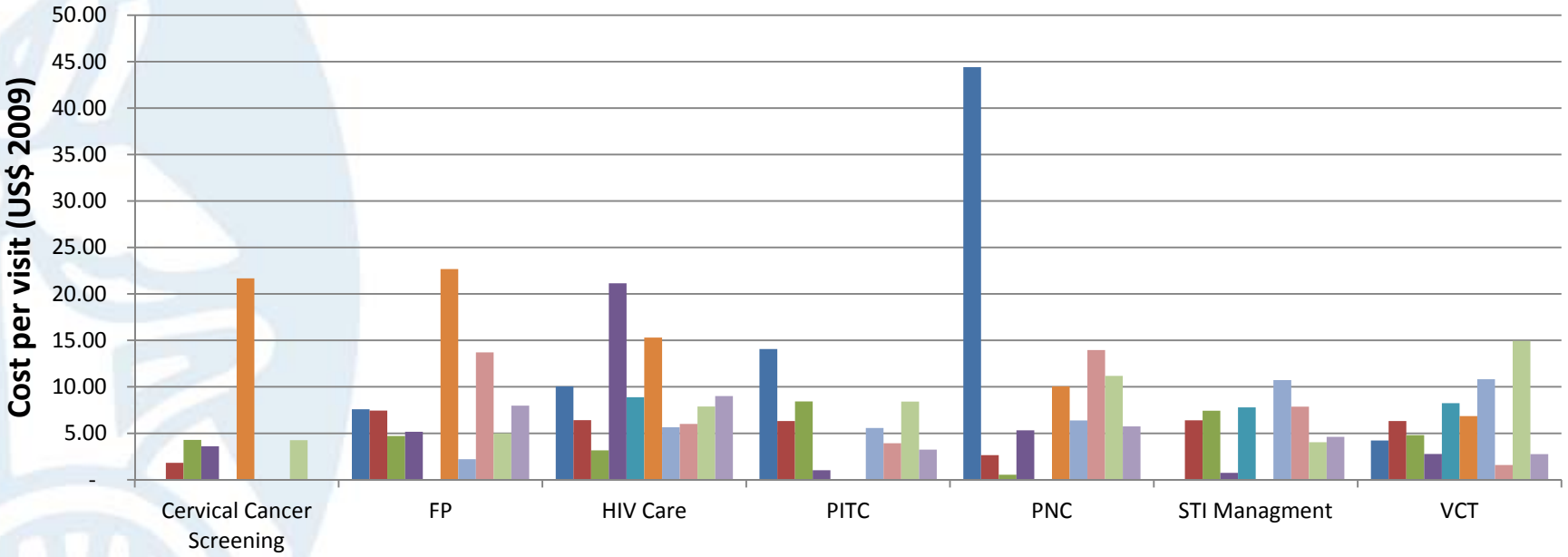
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Variation in unit costs per visit – minus drugs and supplies (Kenya)



- Wide variation in unit cost per visit for all services across facilities
- Least variation in family planning services and nearly 10 fold variation in unit costs of HIV care (costs ranging from US$3.88 to US$39.07 per client visit)

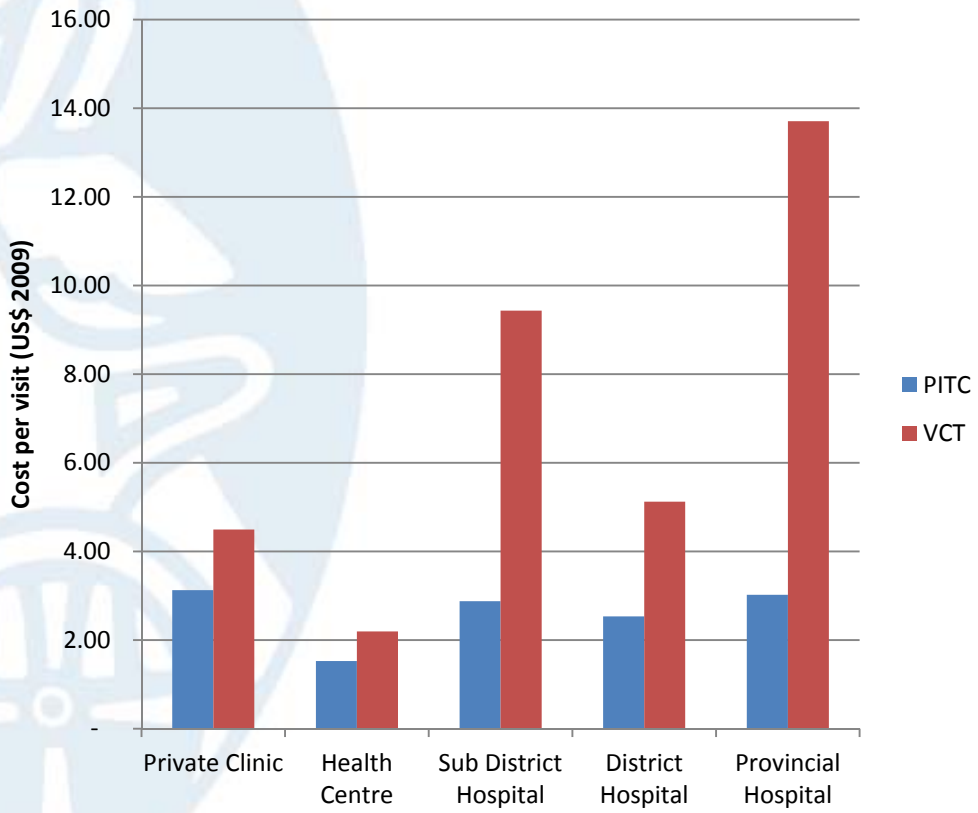
Variation in unit costs per visit – minus drugs and supplies (Swaziland)



- Less variation in unit cost across health facilities for the different services
- Unit cost for HIV care visits range from US$3.17 to US$21.15

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Unit costs per PITC/VCT client C&T: Kenya

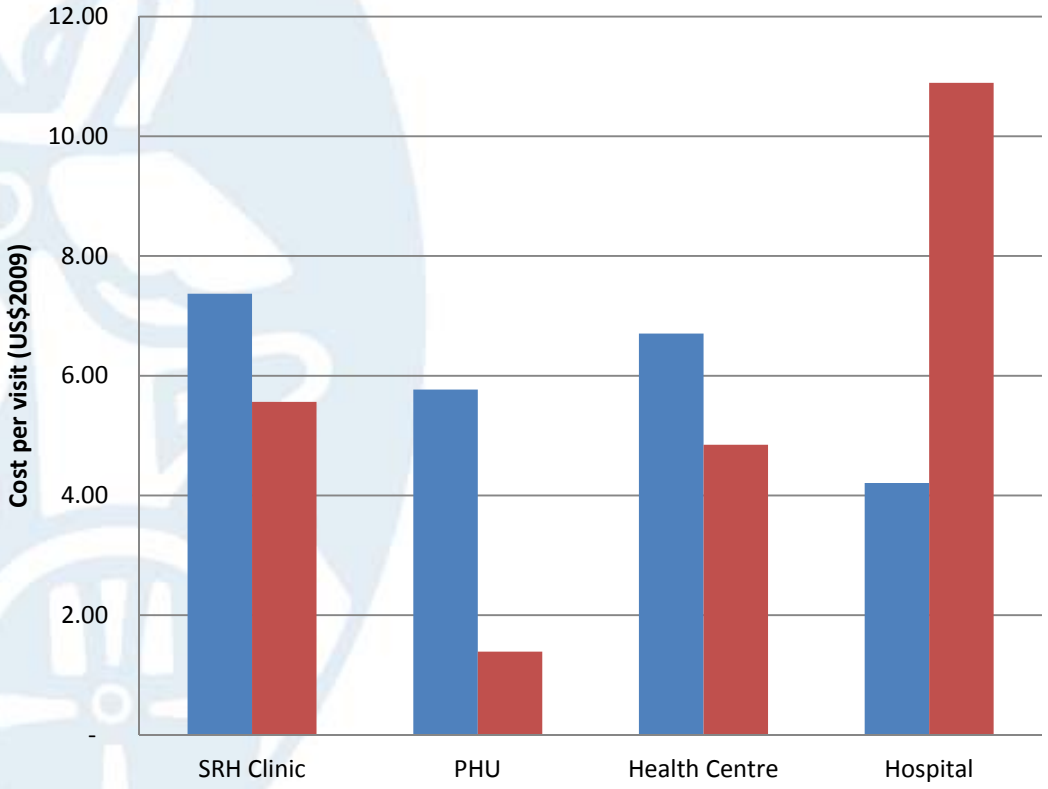


PITC	
Average cost per client C&T	US$ 5.71
Average cost per client diagnosed HIV positive	US$ 46.96

VCT	
Average cost per client C&T	US$ 8.27
Average cost per client diagnosed HIV positive	US$ 110.32

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Unit costs per PITC/VCT client C&T: Swaziland



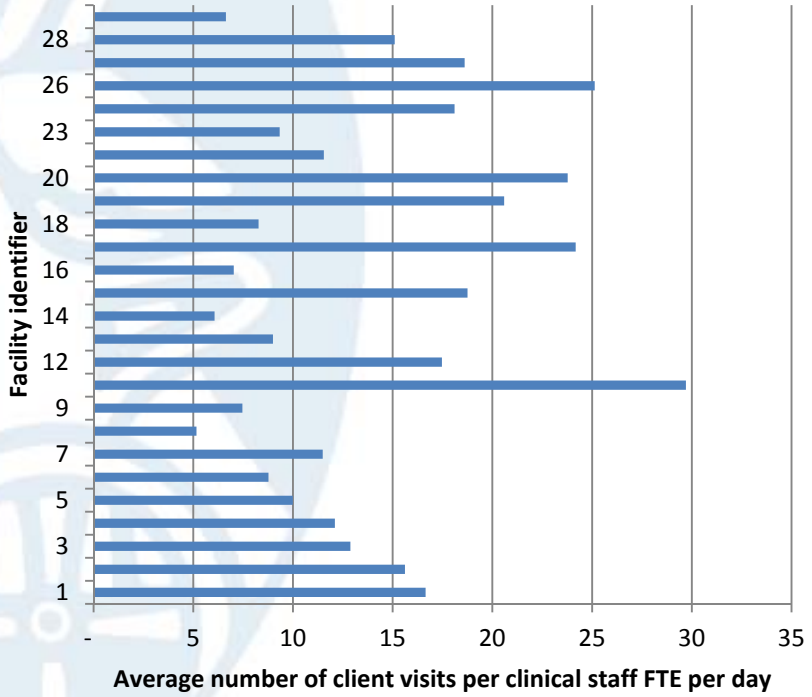
PITC	
Average cost per client C&T	US$ 7.79
Average cost per client diagnosed HIV positive	US$ 47.85

VCT	
Average cost per client C&T	US$ 9.44
Average cost per client diagnosed HIV positive	US$ 45.46

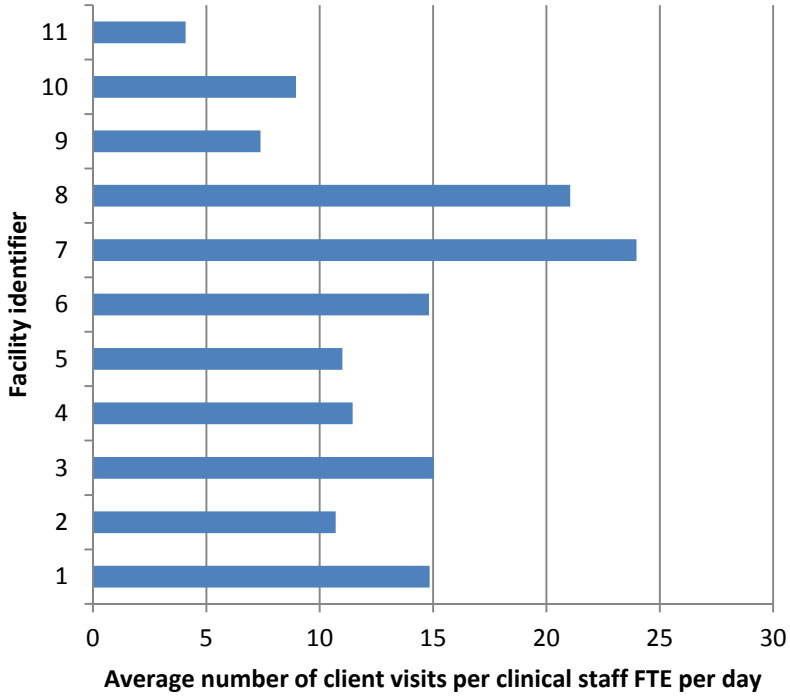
LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Variation in staff workload across health facilities

Kenya

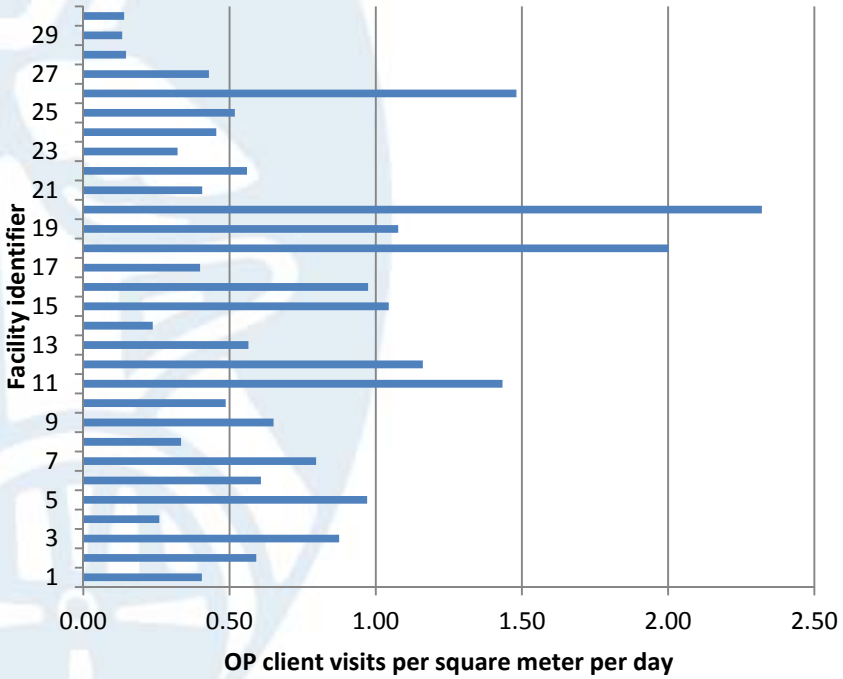


Swaziland

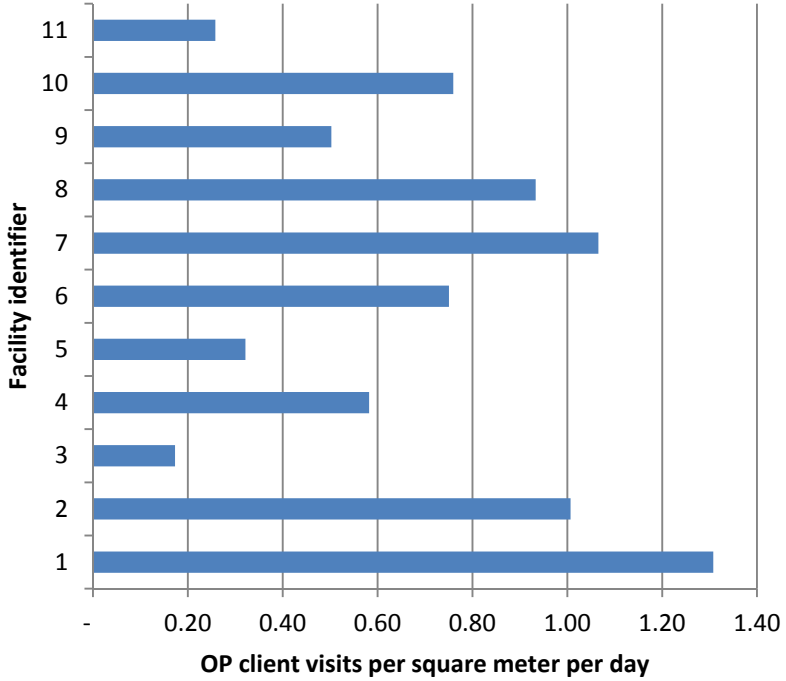


Variation in capital resource use across health facilities

Intensity of use of space - Kenya



Intensity of use of space - Swaziland



Conclusions and policy implications...

- Wide variation in unit costs per visit of SRH/HIV services suggests room for efficiency improvement
- Unit costs appear to be driven largely by the efficiency of use of existing human resources
- Probable gains to be made in increased utilisation of both human and capital resources due to integration, but risk of overload in other facilities
- While the results suggest that unit costs of integrated HCT may be lower, integrated HCT and stand alone VCT services are not substitutes for each other in all settings
- When planning the delivery of HIV and SRH services policy makers should not only take into account costs but also desirability of services fron perspective.

Further work

- Analysis of endline costs to determine changes in unit costs per visit, human and capital resource utilisation resulting from integration and explain variation in costs
- Use of non parametric data envelopment analysis to estimate technical efficiency of health facilities providing integrated HIV and SRH services incorporating quality of care measures
  - estimation of the output oriented technical efficiency scores for each facility using DEA
  - description of the variation in efficiency across the health facilities and explore the causes of variation in efficiency across study sites
  - verification of presence of economies of scope and scale
- Application of an index of integration developed to measure and account for actual degree of integration at each facility level in an econometric analysis to determine the impact of integration on the costs and efficiency of HIV and SRH services

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Acknowledgements

Ministry of Health, Swaziland
Ministries of Health, Kenya
Family Health Options Kenya (FHOK)
Family Life Association of Swaziland (FLAS)

Learn more at:
www.integrainitiative.org

Support for this study was provided by the Bill & Melinda Gates Foundation. The views expressed herein are those of the author(s) and do not necessarily reflect the official policy or position of the Bill & Melinda Gates Foundation

For a copy of this presentation please visit same.lshtm.ac.uk

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE