



Delivering High-Quality DSD Services at Scale

A CQUIN Learning Network Workshop

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Using client feedback to improve the quality of HIV services in Zambia

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HIV Learning Network
The CQUIN Project for Differentiated Service Delivery



Outline

1. Study Background
2. Intervention Design
3. Study Design and Methods
4. Results
5. Conclusion

'They care rudely!': resourcing and relational health system factors that influence retention in care for people living with HIV in Zambia

Chanda Mwamba,¹ Anjali Sharma,¹ Njekwa Mukamba,¹ Laura Beres,^{1,2} Elvin Geng,³ Charles B Holmes,^{1,2} Izukanji Sikazwe,¹ Stephanie M Topp^{1,4}

just to say the truth, one of the reasons why I stopped care is because there they shout at us very much - They are rude! (Urban Female, Disengaged, Eastern Province)



Factors and mechanisms enabling disengaged HIV patient return to care in Zambia

[Under review]

Beres LK, Mwamba C, Bolton-Moore C, Simbeza S, Topp SM, Sikombe K, Mukamba N, Mody A, Schwartz SR, Geng E, Holmes CB, Kennedy C, Sikazwe J, Denison JA

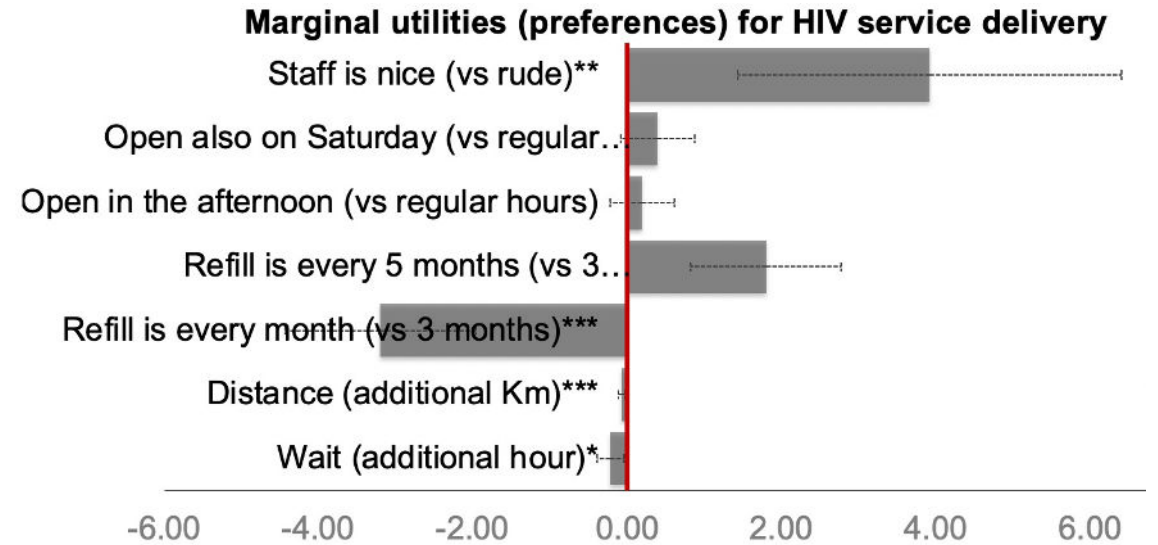
"So, approach matters ... If they approach [patients] well, they will go back [to care] ... but if they talk to them, "Why don't you drink your medicines? Do you know that you can die?" ... But me they approached me in a very friendly way, so it was so encouraging to go back..."

BMJ Glob Health: first published as 10.1136

PLOS MEDICINE

Understanding preferences for HIV care and treatment in Zambia: Evidence from a discrete choice experiment among patients who have been lost to follow-up

Arianna Zanolini, Kombatende Sikombe, Izukanji Sikazwe, Ingrid Eshun-Wilson, Paul Somwe, Carolyn Bolton Moore, Stephanie M. Topp, Nancy Czaicki †, Laura K. Beres, Chanda P. Mwamba, Nancy Padian, Charles B. Holmes, Elvin H. Geng



Current HIV/AIDS Reports

Exploring Relative Preferences for HIV Service Features Using Discrete Choice Experiments: a Synthetic Review

I Eshun-Wilson¹ · H-Y Kim² · S Schwartz³ · M Conte⁴ · D V Glidden⁵ · E H Geng¹

“Across settings, the strongest preference was for nice, patient-centered providers, for which participants were willing to trade considerable amounts of time, money, and travel distance.”

PCC Study Objectives and Hypotheses

- *Questions*
 - *Can we improve the inter-personal experience of HIV care?*
 - *Can we activate HCW discretion in day-to-day activities to promote retention?*
 - *Can an improved inter-personal experience improve clinical outcomes?*
- *Hypotheses:*
 - *A pool of untapped or latent motivation to help exists in the health system, which is often unseen and unrewarded, and can be activated using training, mentorship and data*
 - *Training and mentorship can facilitate HCW flexibility to help patients via patient-centered communications & discretionary logistical, psychosocial & clinical actions*
 - *The improved patient experience will improve retention and clinical outcomes, and HCW experience as well.*

Intervention Design

What is the PCC Approach?



Created by Artem Kovyazin
from Noun Project

1. Train and mentor providers

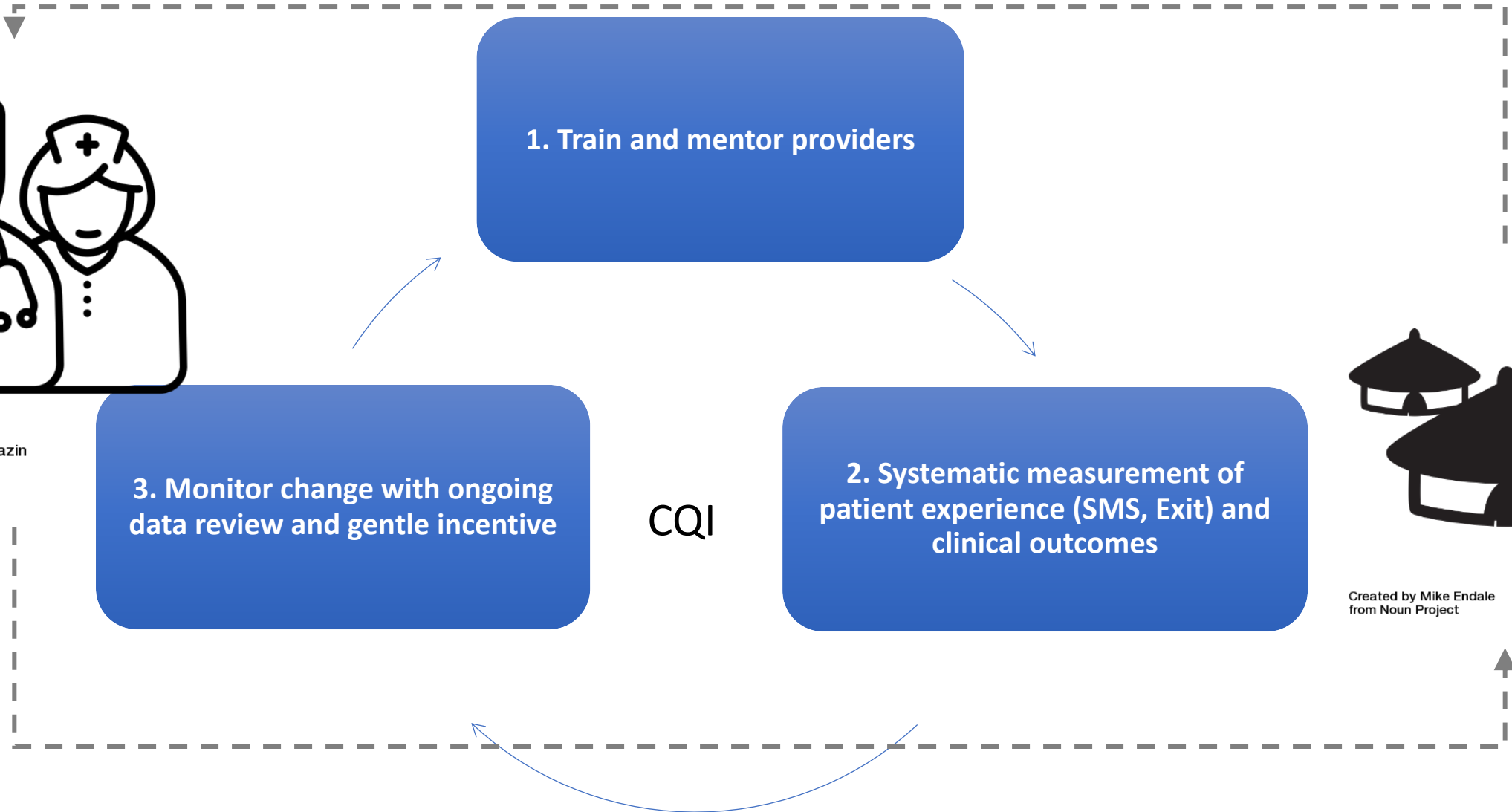
2. Systematic measurement of
patient experience (SMS, Exit) and
clinical outcomes

3. Monitor change with ongoing
data review and gentle incentive

CQI



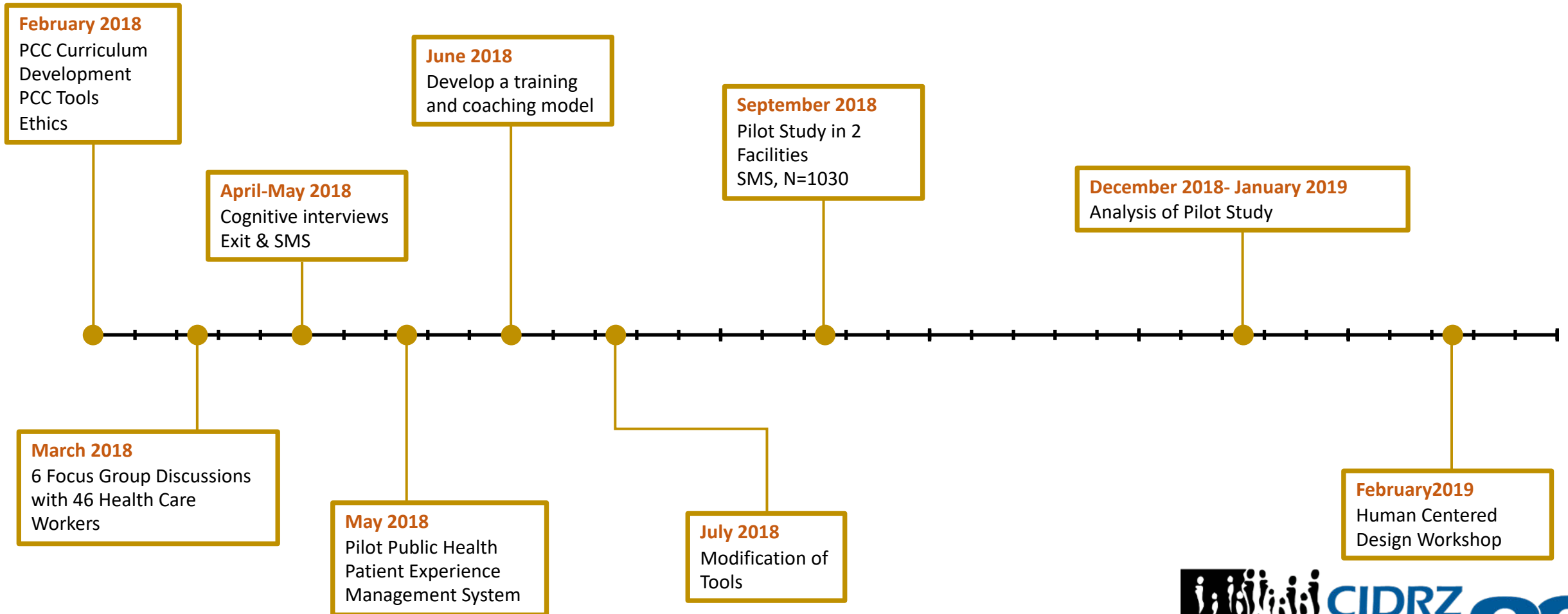
Created by Mike Endale
from Noun Project



Patient Experience-Oriented Approach in Wider Health Systems Context

- Amplifies existing health systems improvement activities (e.g., ministry led quality improvement)
- Supports ongoing HCW efforts and leverages HCW PCC champions and social network influence
- Synergizes with strategies to promote differentiated care
 - Innovation needs time and effort – decongestion of clinic will create that time
 - Adaptation and use of differential models depends on front line health care worker judgement
- Focuses improvement efforts at the facility level
 - Next generation of improvement efforts

Formative Design: Develop and Test PCC Approach Using Mixed Methods and Human Centred Design



Overview of Intervention

- Development and Delivery of PCC Curriculum
- Facility Sensitisation and Mentorship
- Synthesis Meetings- 6 weeks post training
- Data Review Meetings- Quarterly
- Incentive Provisions- Bi-annual, 2 years

*“Morning. Your survey is now ready. Please dial *744# to begin the survey”*

*“Hello, dial *744”*

*“Hello, dial *744# to start your PCPH survey free of charge”
or
“Hello, dial *744# to start your free PCPH survey and receive x airtime”*

Period 1

Oct 31 - Jan 7

Period 2

Jan 8 – May 28


Period 3

May 29 - Current

Legend:



Best 






Good 

Medium 

Low 

Patient Experience

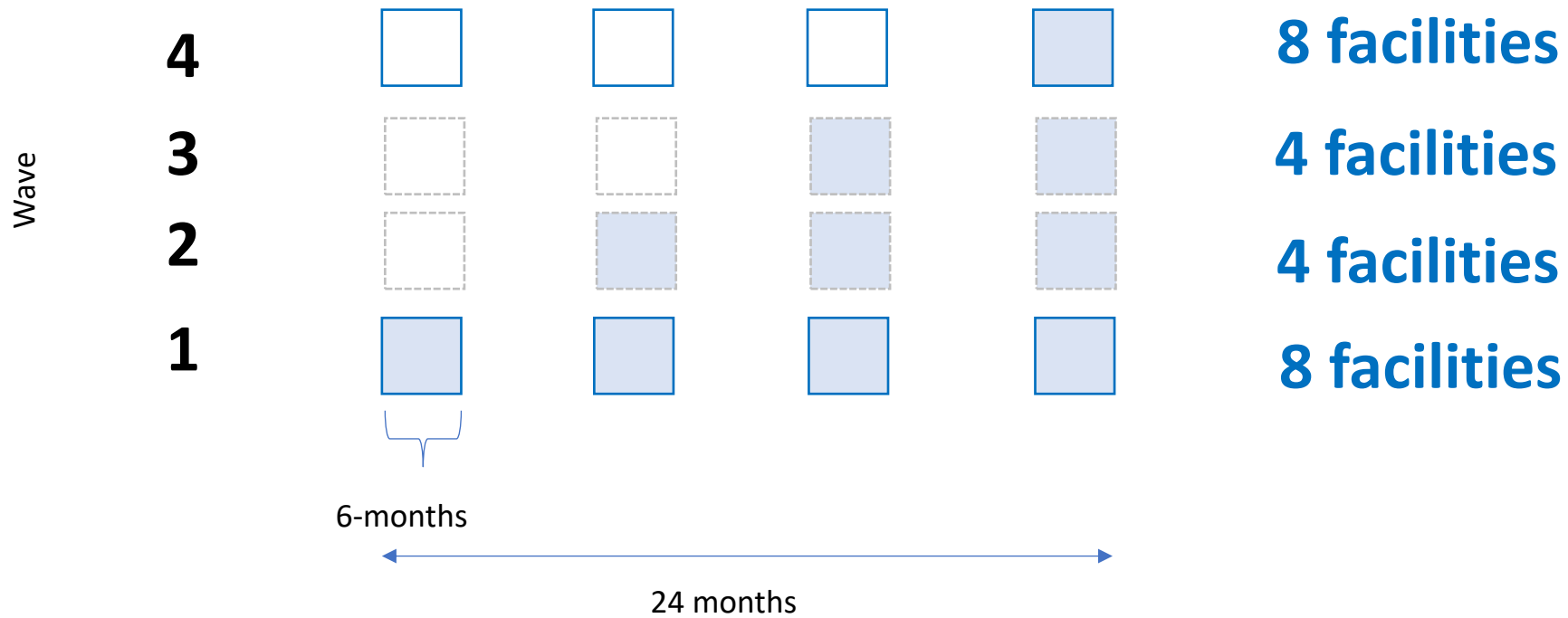
Questions to Patients	Percent Patients		Current Period Rank Among Facilities	
	Previous Period	Current Period	1 - 8 (target = 1)	
Were you happy about the care that you received?*	81%	98%		3
Did your care provider listen to what you said?*	97%	97%		3

Questions to Patients	Percent Patients		Current Period Rank Among Facilities	
	Previous Period	Current Period	1 - 8 (target = 1)	
I witnessed care providers behaving rudely during my visit.*	20%	9%		1
Spent more than 4 hours at the clinic	19%	19%		2
Difficult to attend next appointment	12%	10%		1
Unable to pick-up medicine	0%	0%		1
Were lab results lost?	50%	26%		6

OVERALL = 90%

Study Design and Methods

Stepped Wedge Design



Study Population

All Health Care Workers in the study facility
All patients on ART (New ART, In Care, LTFU)

Outcomes of PCPH Study

Implementation outcomes

Mixed methods evaluation of intervention delivery

Service delivery outcomes

Trained Exit Clients, RIAS

Patient & HCW experience outcomes

Exit Interviews
HCW Survey

Behavioral outcomes

Visit Spacing:
Retention, DSD

Clinical outcomes

Viral load:
Viral failure

Measuring Patient Experience

10:54 [icons] 96%

Trained Exit Survey In-Care v3

* 1. Did your HIV care provider greet you in a way that made you feel comfortable?

Is there anything more that you would like to add?

* 2. Was your HIV care provider happy that you came for a visit to the clinic today?

Is there anything more that you would like to add?

* 3. Did you have a one-to-one conversation with your HIV care provider?

Is there anything more that you would like to add?

* 4. Did your HIV care provider listen to what you said?

- **Trained Exit Client (TEC) Survey**
 - Patients sensitized to exit survey PRIOR to visit, completed after visit
 - Established what type of care they should be expecting → decreased social desirability bias
 - Conducted at Wave 2-4 clinics (n=16) among in care and returning patients
- **Exit Survey**
 - Participants surveyed after completing visit → Same survey as TEC

10:52 [icons] 96%

Exit Survey

* 1. Did your HIV care provider greet you in a way that made you feel comfortable?

* 2. Did your HIV care provider listen to what you said?

* 3. Did your HIV care provider give you as much information about your health as you wanted?

* 4. Did your HIV care provider allow you to ask questions?

Please let us know if any of the following occurred during your visit today,

* 11. I witnessed HIV care providers behaving rudely during my visit today.

* 12. Were your lab results lost?

* 13. Were you able to pick up your medicine today?

Clinical Outcomes

- Retention using EHR Data – SmartCare
 - **In Care at 15 months** – binary outcome of any visit made between 11-19 months
 - **Greater than 30 days late to next visit** – for each visit made during study period, was the individual more than 30 days late to their next visit?

Quantitative Analyses Overview

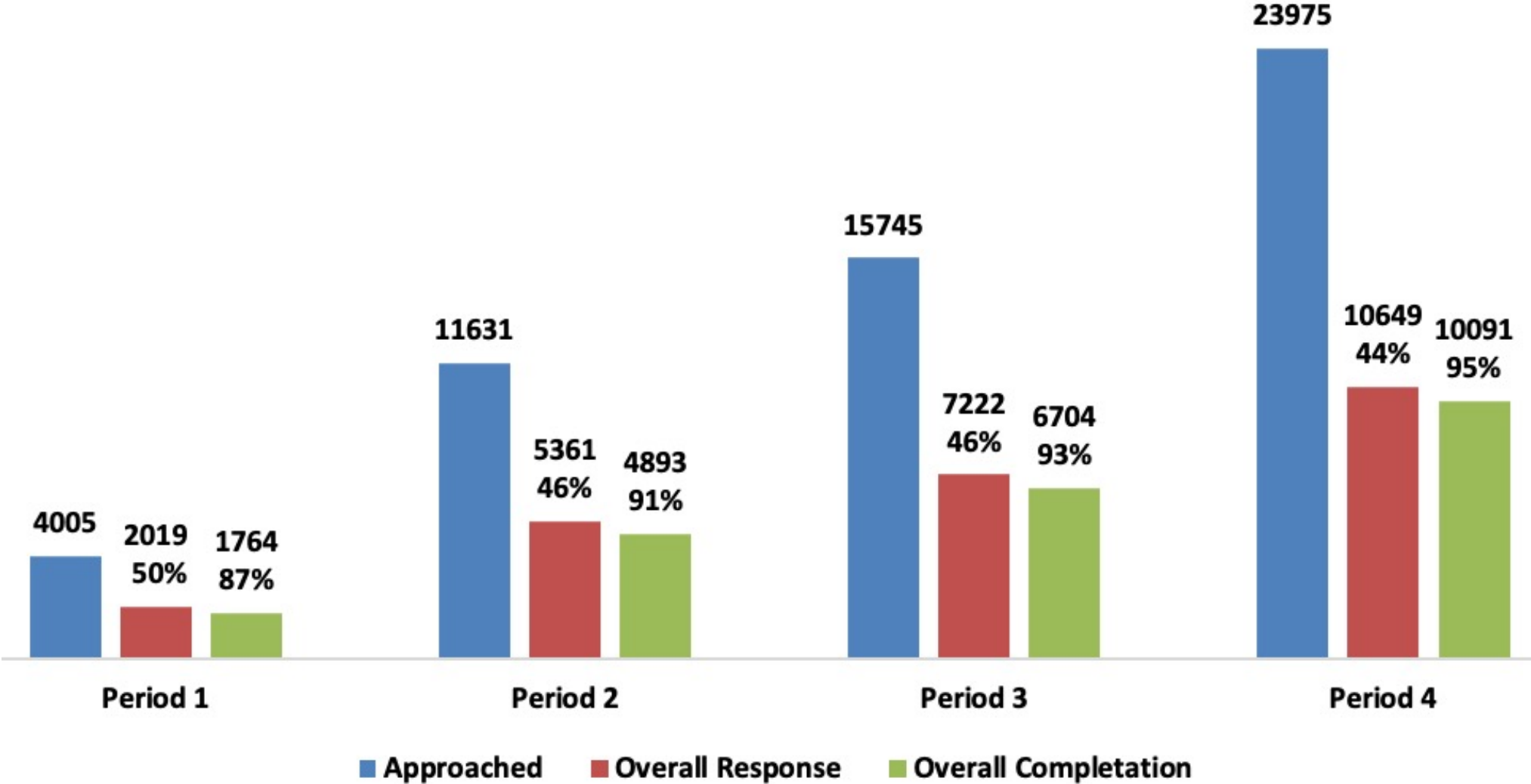
- TEC, Late to next visit – Short-term outcomes
 - Analyzed using data from Waves 1-4 (except TEC Waves 2-4)
 - Exposure – Control, Intervention <6m, and Intervention >6m
 - Accounts for time lag for maximal intervention effect to be seen
- In Care at 15m – Long-term outcomes
 - Analyzed using participants from Wave 1 and 4 only
 - Time zero was first visit made during Period 1 → Outcome determination 15 months later (i.e., Period 3)
 - Participants either fully exposed or fully unexposed for observation period
- General Analytic Approach
 - Mixed-effects regression with facility as random effect
 - Adjustment for sex, age, care status (e.g., in care, returner, new ART), outcomes at baseline, time in care, facility, and secular time (as appropriate)
 - Overall results and stratified results by age, sex, and care status (e.g., in care, returner, new ART)



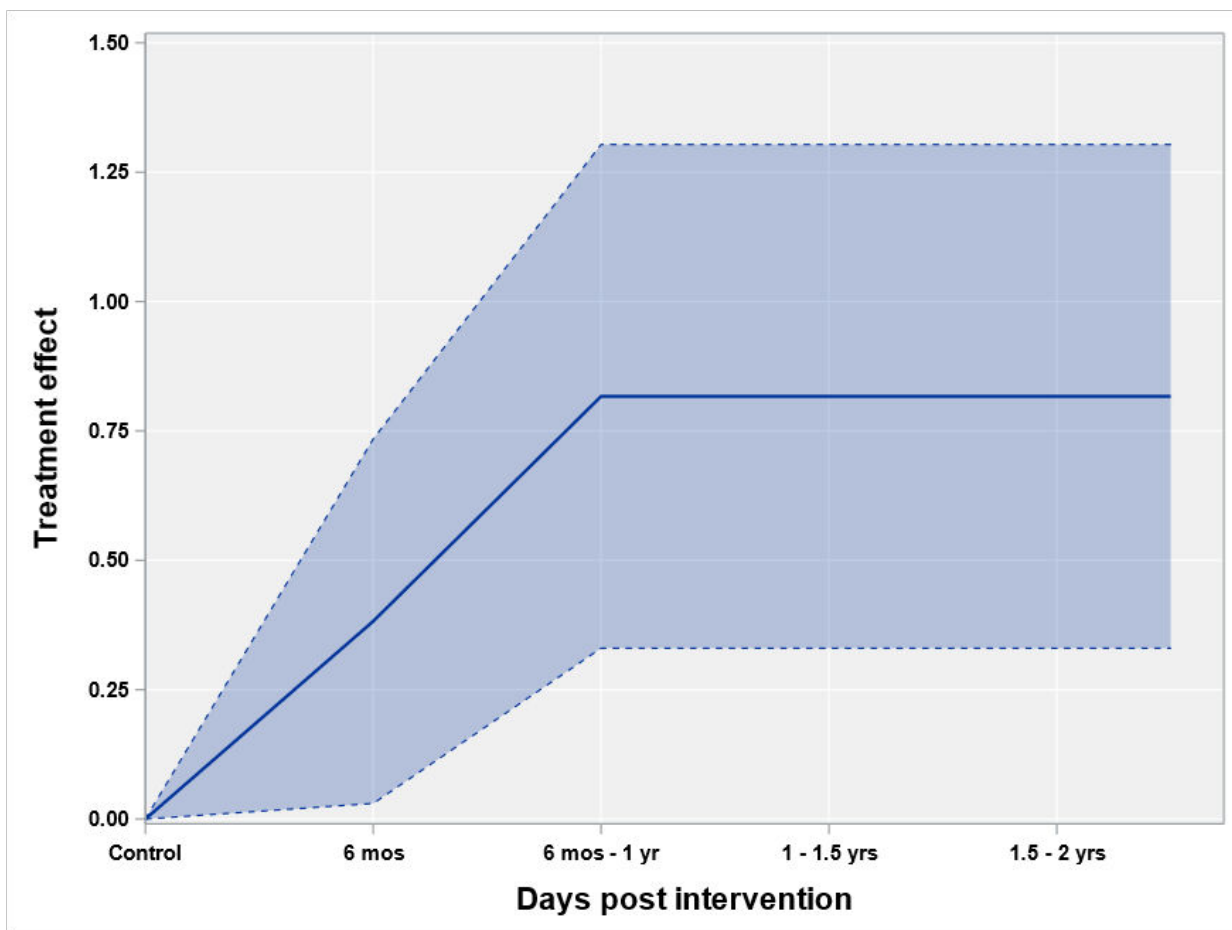
PCC at Work- Results



USSD/ SMS response rate by period



Results: Patient Experience - TEC

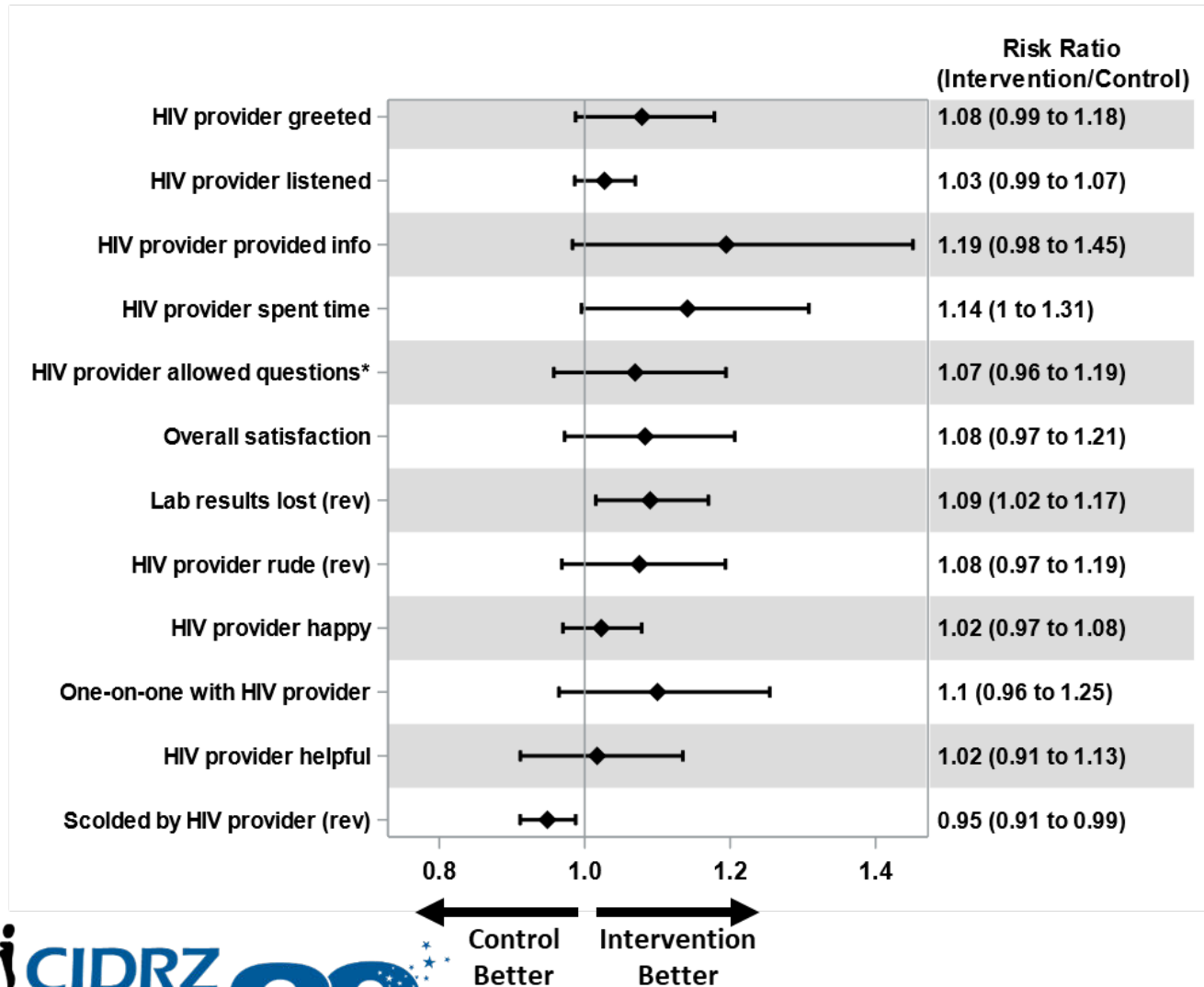


Characteristic	Control (N = 679)	Intervention (N = 486)
% Females	49.8%	51%
Age (mean±SD)	38.8±10.1	39.3±10.1
Years in Care (mean±SD)	5.4±4.2	6±4.2
% LTFU	44%	38%

“I would like to say Chelstone midwives are heavenly sent. I went for check-ups twice every week at maternity wing till I delivered as I had complications last year. They received me warmly and treated me like a princess regardless of who I found on duty. This treatment was the same with other expectant mothers and we would chat with the midwives like friends. May they keep up the good work and cleanliness. Theirs, is a proper definition of nursing care. Those midwives need hugs and some Christmas present. God bless them all” (Patient, Chelstone Health Facility).

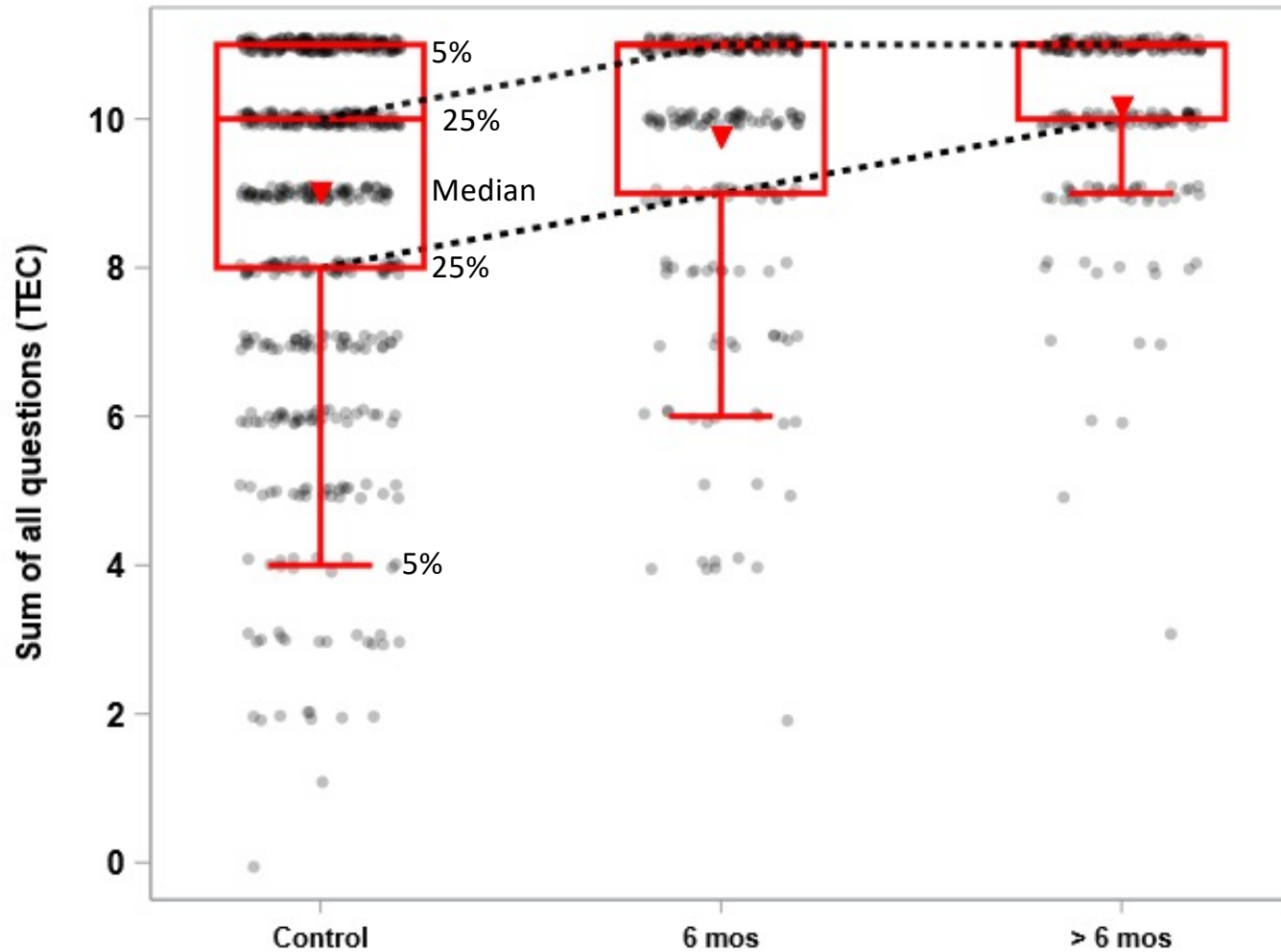
Results: Patient Experience - TEC

Relative Risk, > 6 months vs Control



Mean (95% CI) increase in sum score at > 6 months on intervention compared to control:
0.82 (0.33 to 1.3), P = 0.001

Box plots of TEC sum scores to illustrate patterns in variance across



Population percentile	Change in sum satisfaction score	
	< 6 months PCC vs. control	> 6 months PCC vs. control
Lower 5 th	0.72 (-0.35 to 1.8)	1.81 (0.30 to 3.31)*
Lower 25 th	0.11 (-0.36 to 0.58)	0.69 (0.07 to 1.30)*
Median 50 th	0.14 (-0.11 to 0.39)	0.42 (0.05 to 0.80)*

* P < 0.05

"I must confess that I have visited several health facilities in Zambia, but your hospitality and service is beyond excellence. I was humbled with the way you treated everyone. It gives us hope and rekindles our trust and confidence in the Zambian health care system. We may not be in position to return the favour, but I can assure you that, Jehovah God sees your, works and will surely reward you. May Jehovah alone abundantly bless you and your family in Jesus Name.

🙏🙏🙏🙏🙏🙏🙏🙏 *"(Patient, Kabwata Urban Facility)*

In Care at 15 months Results

	Control (n=41,951)	Intervention (n=42,975)		
	Percent (95% CI)	Percent (95% CI)	Risk Difference (95% CI)	p-value
Overall (n=84,926)	80.6 (76.4 – 84.8)	85.3 (82.1 – 88.5)	4.7 (-0.3 – 9.7)	0.062
In Care (n=58,833)	85.2 (82.1 – 88.3)	88.9 (86.5 – 91.2)	3.7 (-0.2 – 7.5)	0.056
LTFU (n=17,276)	80.2 (76.0 – 84.4)	85.4 (82.3 – 88.5)	5.2 (0.1 – 10.3)	0.040
New ART (n=8,817)	49.6 (41.2 – 58.0)	61.0 (53.4 – 68.5)	11.3 (0.2 – 22.5)	0.048

In Care at 15 months Results (cont.)

	Control (n=41,951)	Intervention (n=42,975)		
	Percent (95% CI)	Percent (95% CI)	Risk Difference (95% CI)	p-value
Female (n=54,950)	79.5 (74.9 – 84.0)	85.2 (81.7 – 88.6)	5.7 (0.2 – 11.1)	0.038
Male (n=29,976)	81.9 (78.9 – 84.8)	85.4 (83.1 – 87.8)	3.5 (-0.2 – 7.3)	0.059
Age<25 (n=6,251)	64.2 (57.8 – 70.7)	70.7 (65.2 – 76.2)	6.4 (-1.9 – 14.7)	0.13
Age 25-44 (n=55,218)	78.4 (73.7 – 83.2)	85.5 (82.2 – 88.8)	7.1 (1.5 – 12.6)	0.011
Age >45 (n=23,457)	88.2 (86.3 – 90.0)	89.2 (87.6 – 90.8)	1.0 (-1.4 – 3.5)	0.41

Conclusion

- Provider and patient centered training and coaching, complements other approaches (e.g., DSD)
- Engaged and changed provider perspectives and behavior
- Improved patient experience (as measured through trained exit interviews)
- Signal in retention

Thank You!

