Using QI methods to maximize DSD impact and efficiencies in Uganda

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HIV LEARNING NETWORK
The CQUIN Project for Differentiated Service Delivery

The study team and funding

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Introduction – DSD

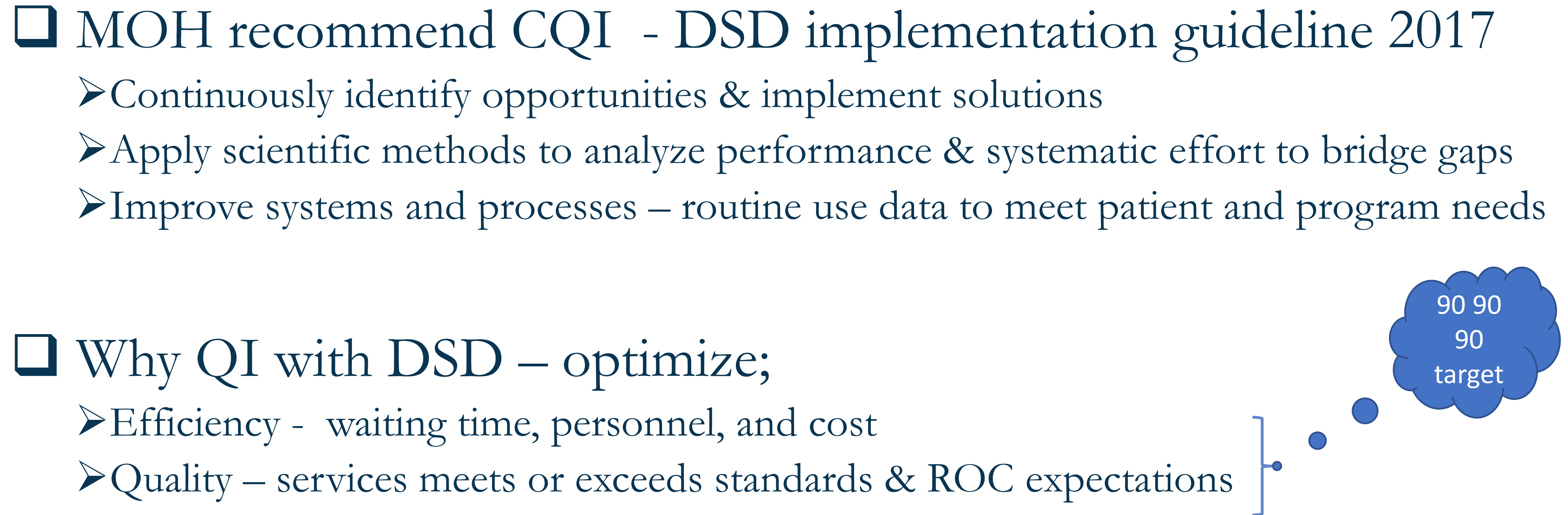
DSD:

- Strategic mix of approaches to address specific requirements of Individual & subgroup of PLHIV
- Modify client flow, schedules and location of services
- Improved access, reduce unnecessary burdens on health system, and enhance quality of care.

DSD models in Uganda:

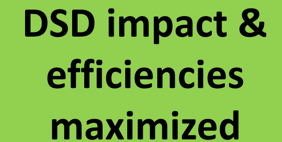
- Facility Based Individual Model (FBIM)
- Facility based group (FBG)
- Fast track drug refill (FTDR)
- Community Drug Distribution Point (CDDP)
- Community Client Led ART Delivery (CCLAD)

Introduction: DSD and QI



DSD implementation State of Affairs - 2018

- ❑ Limited information on:
  - ➢ Implementation process
  - ➢ Quality of services – quality gaps
  - ➢ QI application and best practices
  - ➢ Treatment outcomes
- ❑ Aim of the study
  - ➢ Assess current state of DSD implementation– identify gaps
  - ➢ Apply QI to address quality gaps
  - ➢ Document best practices, treatment outcomes, and the cost



Approach / Methods

Phase 1: *Understand DSDM implementation process, quality gaps*

- 50 DSDM facilities (RRH, GH, HCIV, HCIII)
- Interview 60 informants – service providers & managers
- Observe 2450 ROC receive services- time and motion
- Conduct 8540 exit interviews with ROC
- Review a sample of 12130 care & treatment records of ROC

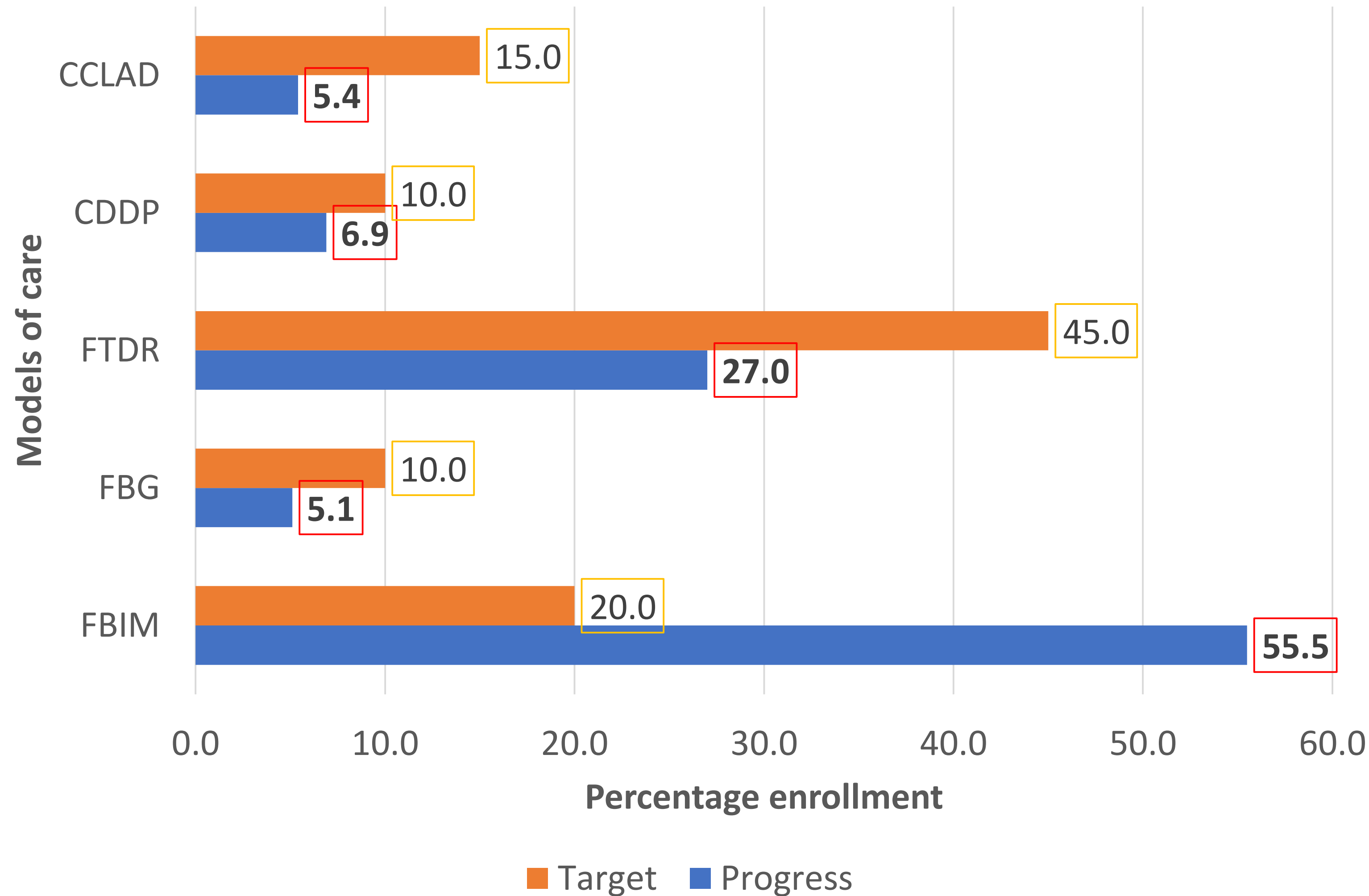
Phase 2: *QI application, best practices, and cost*

- Selected facilities guided by results in Phase 1
- Enhance QI & follow up for 12 months
- Evaluate and document

Approach/methods – ‘indicators/measures of quality’

- Accurate categorization
- Consistency of patient management
- Routine clinical patient monitoring
- Efficiency – waiting time
- ROC satisfaction

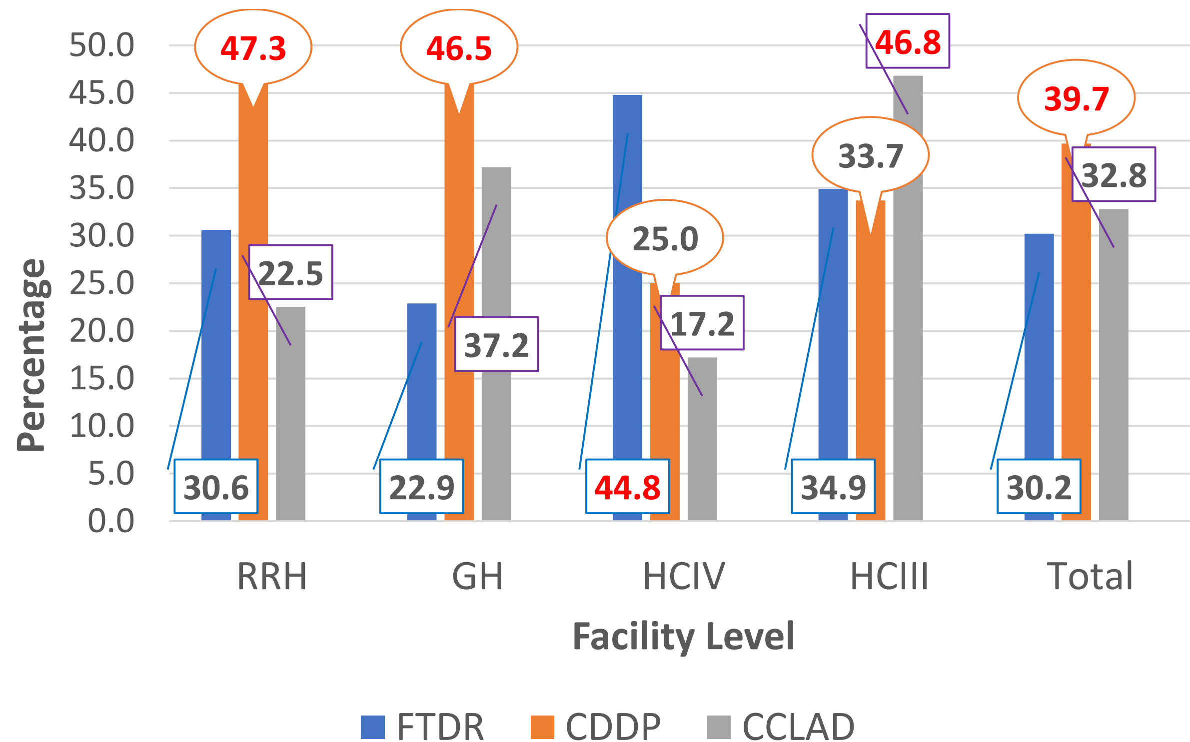
Phase 1: Key Preliminary Results – ROC enrollment



- ➢ High proportion of ROC still in Facility-Based Individualized Models ("conventional" model")
- ➢ Enrollment in multi-month drug refill models is sub-optimal

Phase 1: Key Preliminary Results – ROC Categorization

	Category as per standard criteria n(row%)		
Category on patient file	Unstable	Stable	Total
Stable	**2,589(32.7)**	5,340(67.4)	7,929 (64.9)
Unstable	1,605(80.0)	**401(19.9)**	2,006 (16.4)
Not categorized	1,225(45.9)	1,041(45.9)	2,266 (18.5)
Total	5,419(44.4)	6,782(55.6)	N=12,201



- ✓Green – good to fair concordance level
- ❖ **Yellow - Mis-categorization**

- ➢Unstable managed in models for stable ROC
- ➢Inconsistence more common with community models

Phase 1: Key Preliminary Results – ROC routine monitoring

Assessment during last visit in past three months

	FBIM (%)	FBG (%)	FTDR (%)	CDDP (%)	CCLAD(%)	Total (%)
VL<12mth	74.2	88.2	89.9	83.1	88.0	82.8
VL 12mth	86.4	92.2	90.5	85.2	88.1	88.6
Adherence	94.0	96.9	95.8	95.4	98.8	95.4
Weight	96.0	95.8	95.8	78.3	77.9	93.3
TB	95.3	96.5	94.4	89.3	95.8	94.8
OI	95.0	95.7	93.9	87.2	94.2	94.2

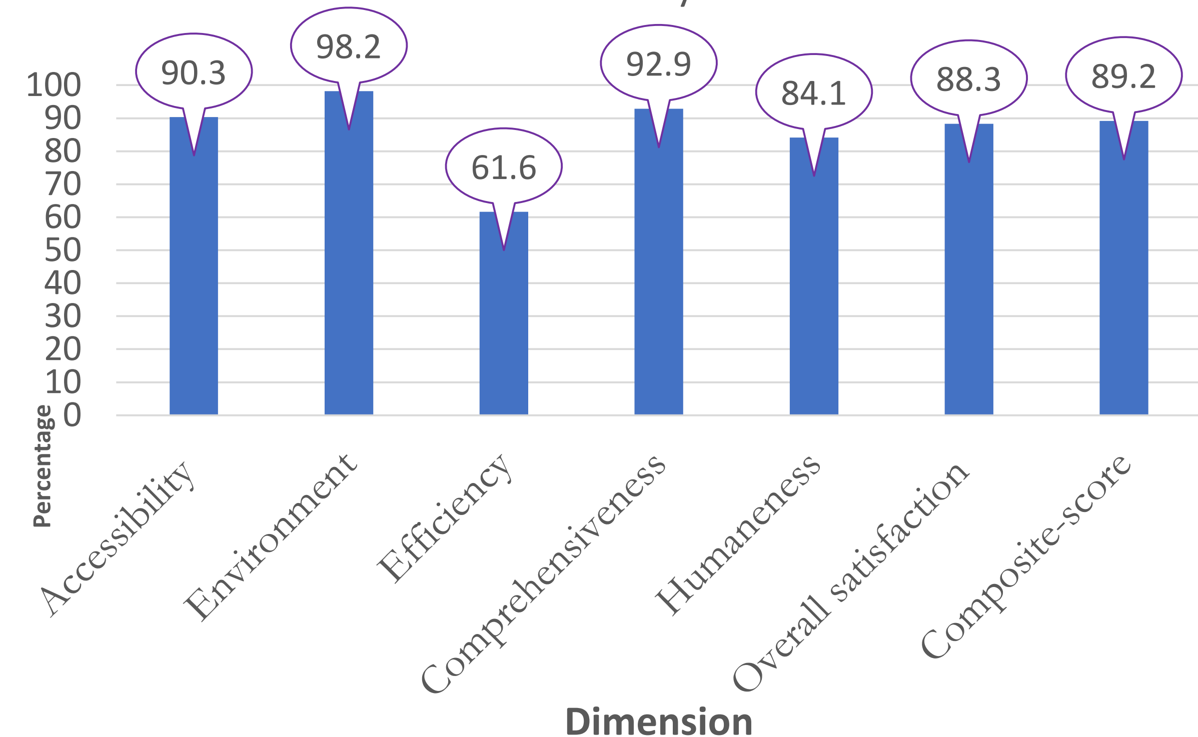
- Overall, ADH, WGT, TB, and OI is good across the models
- VL testing relative low
- VL testing is lower for FBIM, CDDP and CCLAD compared to FBG and FTDR

Phase 1: Key Preliminary Results – Efficiency (waiting time)

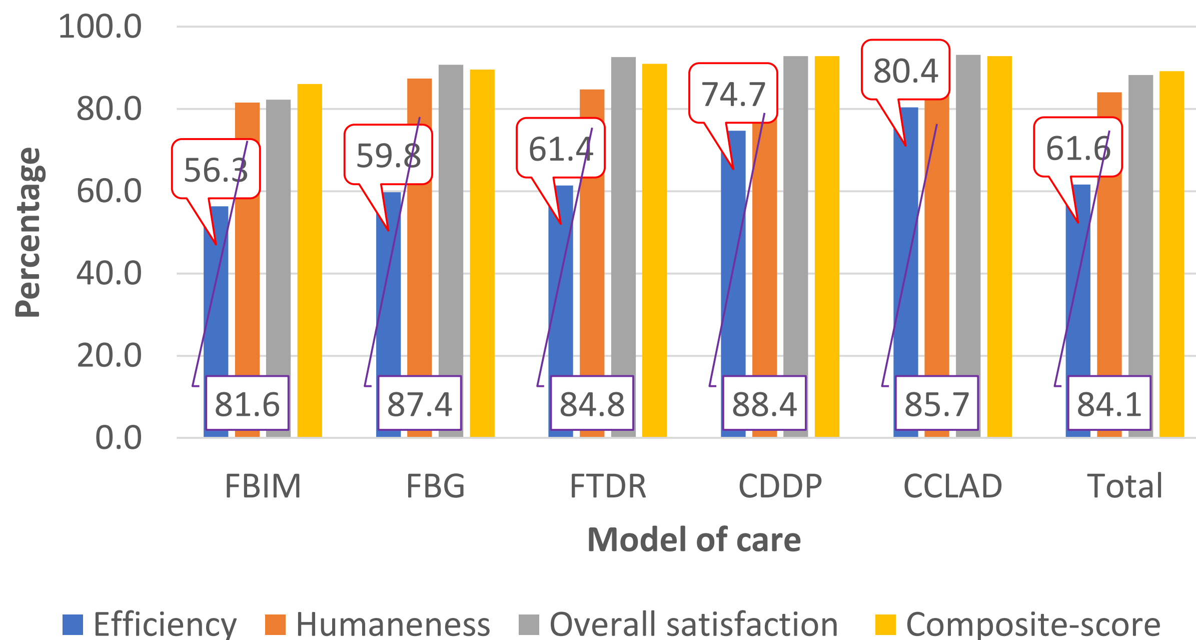
Facility level	FBIM Median(IQR)	FBG Median(IQR)	FTDR Median(IQR)	CDDP Median(IQR)	CCLAD Median(IQR)	Total Median(IQR)
Overall	195(124-280)	180(103-270)	172(87.5-272.5)	68(15-274)	80(14-190)	170(75-270)
Type of visit						
Drug refill	190(123-273)	179(98-270)	169(83-270)	65(11-264)	68(13-190)	161(70-263)
Clinic review	260.5(137-340)	195(156.5-243)	225(156-291)	223(179.5-345)	139(97.5-202)	209.5(139-297)
Duration on Model						
1≤6mths	185(118-272)	175(87-259)	147(66-260)	105(15-265)	76(12-200)	160(75-260)
7≤12mths	209(154-300)	152(114-212)	150(81-197)	60(41-107)	90(22-146)	138(60-209)
>12mths	213(142-310)	225(156-302)	226.5(130-300)	174(9-362)	62(11-215)	190(92-297)

- ➢Community models have lower waiting time than facility
- ➢Waiting time for FBIM relatively higher compared to others models
- ➢ROC on model for >12mths tend to stay longer than those ≤12mths

Phase 1: Key Preliminary Results – ROC satisfaction



- Efficiency and humaneness had the lowest satisfaction level



- Facility base models had lower satisfaction level than community models
- FBIM had lowest level of satisfaction

Phase 1: Key Preliminary Results – Treatment outcome

Characteristic	Outcome	
	Adherence (>=95%)	Viral suppression (<=1000ml)
Model of care		
FBIM	4085 (82.7)	3000 (60.7)
FBG	1034 (91.4)	868 (76.7)
FTDR	4040 (93.9)	3677 (85.5)
CDDP	625 (92.2)	549 (81.0)
CCLAD	1063 (92.8)	967 (84.5)
Duration on Model		
1≤6 months	5837 (88.1)	4544 (68.6)
7≤12 months	1195 (93.1)	942 (73.4)
>12 months	3796 (89)	3559 (83.4)

- Good adherence
  - Low for FBIM
- Sub-optimal VL suppression across models
  - Why?

Phase 1: Key Preliminary Results – What Quality issues?

- High level of mis-categorization of ROC
- Unstable ROC receiving multi-month drug refill
- Sub-optimal VL testing
- Sub-optimal VL suppression
- Sub-optimal efficiency – waiting time & ROC satisfaction

Next step: Phase 2

- ❑ Enhanced QI – quantity and quality in 8 facilities
- ❑ Follow up for 12 months
- ❑ Measure effect - quality of services, treatment outcomes, and the Cost
- ❑ Document best practices

Acknowledgement

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- ROC

Thank You!