



**AIDS** 22<sup>ND</sup> INTERNATIONAL AIDS CONFERENCE  
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BREAKING BARRIERS • BUILDING BRIDGES

# **COST AND IMPACT OF PREP IMPLEMENTATION IN HAITI TO ADOPT WHO RECOMMENDATIONS: RESULTS FROM EQUIP**

S Magwaza

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Innovation for Health



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# Presentation Outline

- EQUIP Activities in Haiti
- Motivation for PrEP
- Type of Model & Costing parameters
- PrEP model scenarios & assumptions
- Results
- Limitations
- PrEP Implementation Timeline



# EQUIP Haiti Areas of Technical Assistance 2016-2019

Service Delivery			
Test & Start Roll Out Support (M&E)	Multi Month Scripting / Dispensing	HIV Clinical Management for Key Populations	Viral Load Monitoring Scale Up

Demonstration Projects	
Community ART Distribution	PrEP

Cost Analysis		Policy Support or Staff Secondment
Cost Modelling	Cost Outcomes	Technical Assistance for Guidelines

# Haiti: HIV epidemiology & 90-90-90 Progress

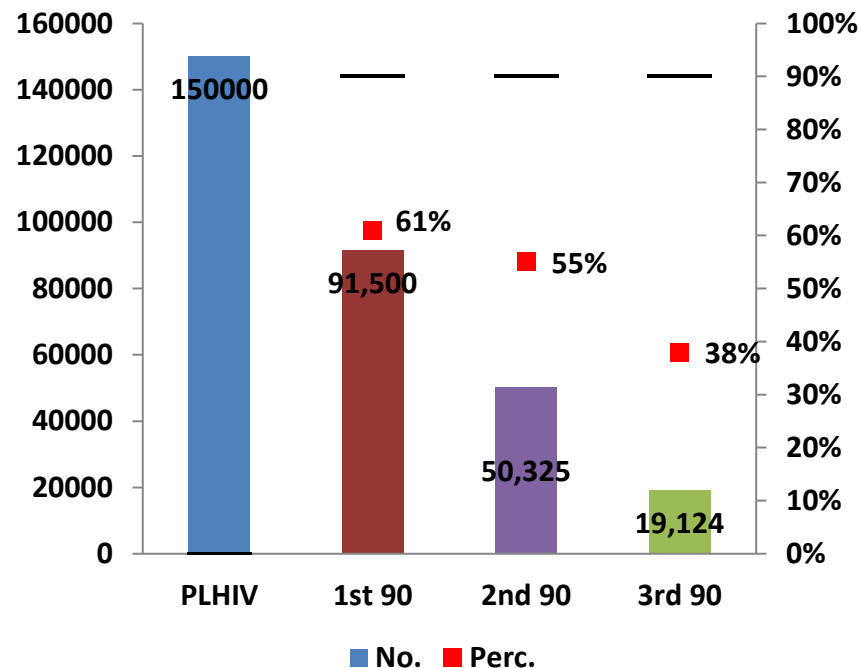
## Global AIDS Monitoring (2017)

- HIV Prevalence: 2.1 % (Pop: 10.9 M)
- PLHIV: 150,000 (est.140K-170K)
- New infections: 7,900 (est.6K-11 K)

## IBBS (2014 ): HIV Prevalence

- FSW: 8.4% (size est. : 71,000)
- MSM: 18.9% (size est.: 31,000)

## Haiti 90-90-90



- Key Population = 1.2 % of those on ART
- Source: UNAIDS, 2016

# UNAIDS Spectrum: GOALS Estimates

1. Spectrum is an analytical tool - used to support policy decisions for public health
2. GOALS is a Spectrum module - used to estimate effects of interventions and resource allocation on HIV infections & deaths
  - coverage; effectiveness & method mix
3. Key parameters used to estimate PrEP :
  - Unit cost
  - Population size estimates
  - Epidemiological and Behavioral parameters
  - Intervention coverage by sex, risk group and year
  - Effectiveness (efficacy and adherence)

# Assumptions & Method

## Goals:

- Assumes effectiveness of each intervention & synergistic effects
- Predicts the number of new infections per year and related costs for each scenario
- Permits model specifications by all population risk groups
- Permits the direct modelling of PrEP
- Fixed unit cost over the set analysis period
- PrEP is “add-on” service to other prevention services

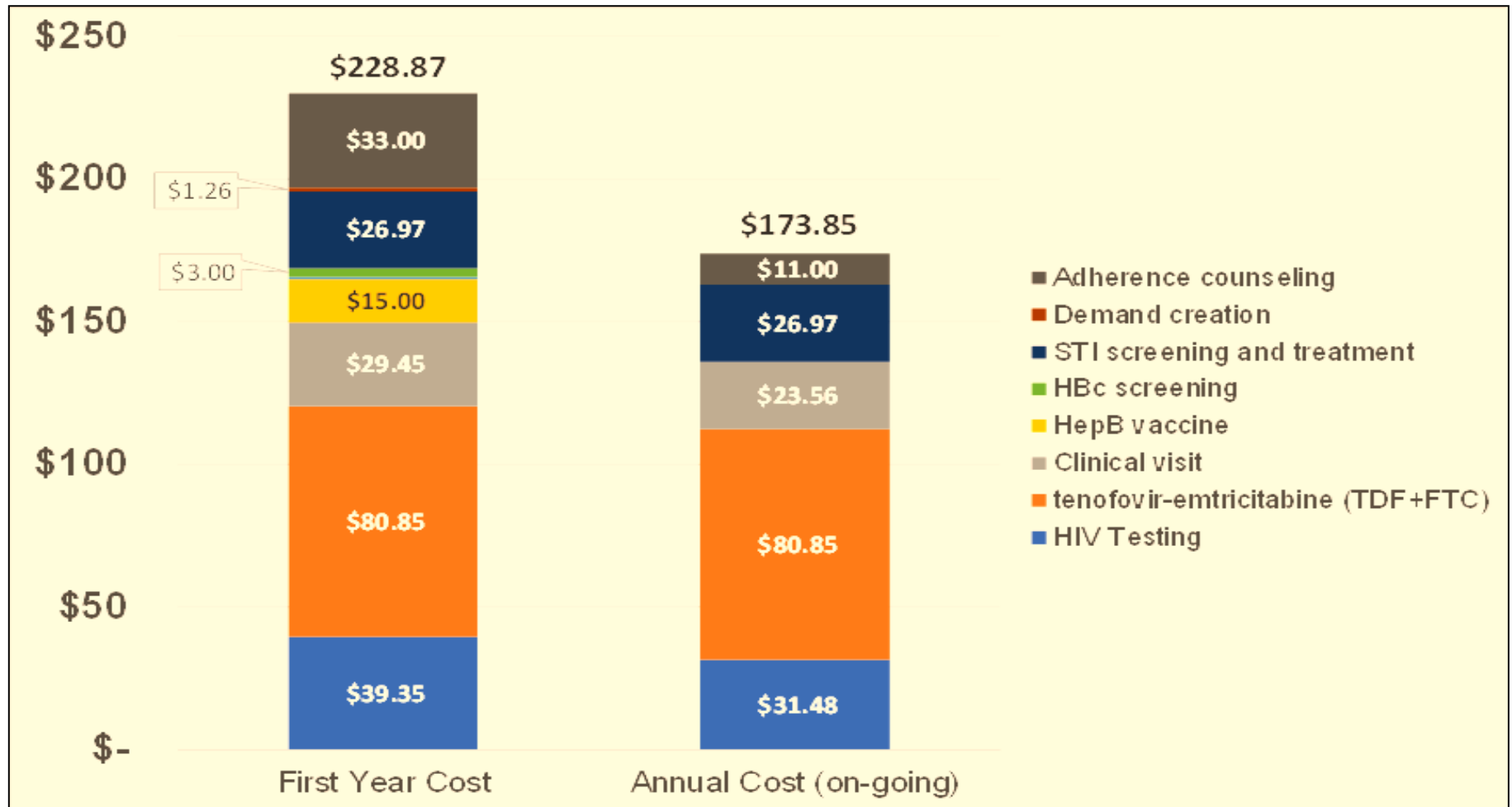
## Methods:

- Ingredient based approach: PrEP annual unit cost
- Varied coverage and adherence rates:  
    Uncertainty Limits: +/- 10% variation in adherence
- Condom: separate analysis with general population at varied coverage rates  
    Uncertainty Limits : +/- 10% variation in HIV infection averted

# Haiti : PrEP adherence and coverage scenarios versus condom use

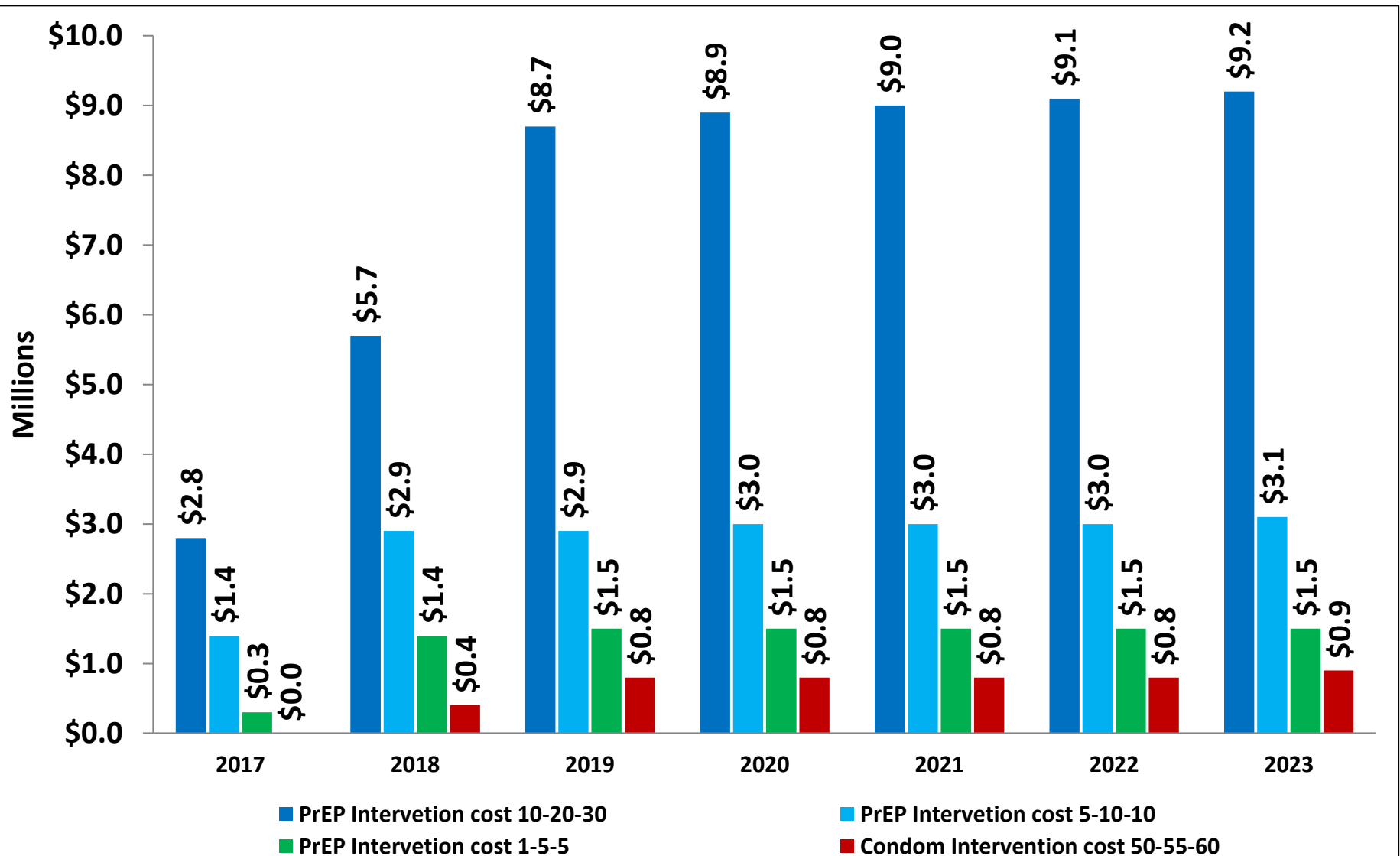
Model No.	Scenario	Adherence	Coverage/use (by year)		
			2017	2018	2019-2023
1	PrEP	50%	10%	20%	30%
2	PrEP	80%	5%	10%	10%
3	PrEP	80%	1%	5%	5%
4	Condoms		50%	55%	60%

# Haiti: Annual PrEP unit cost estimates for patient initiation 1<sup>st</sup> Yr. & Beyond

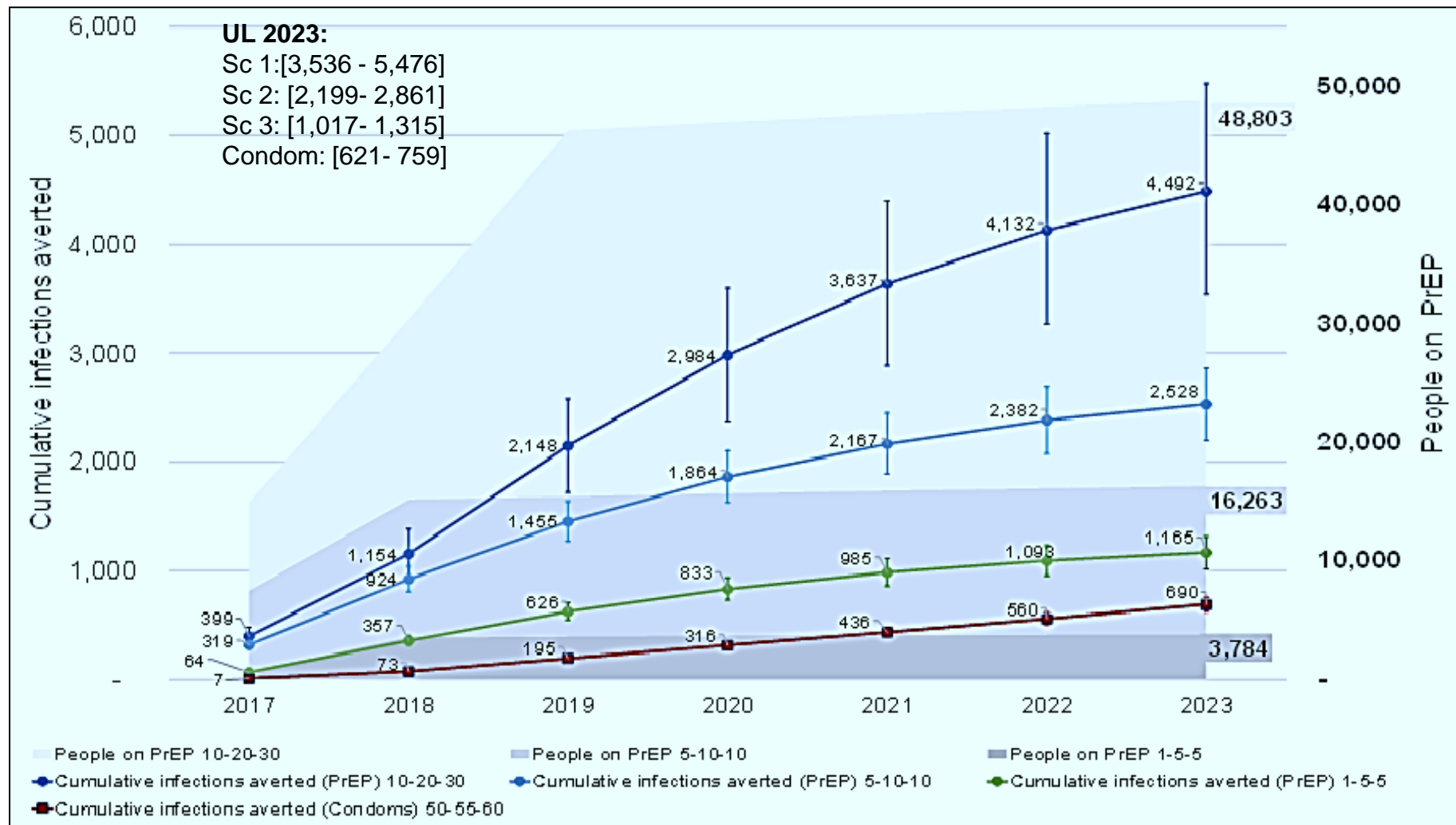




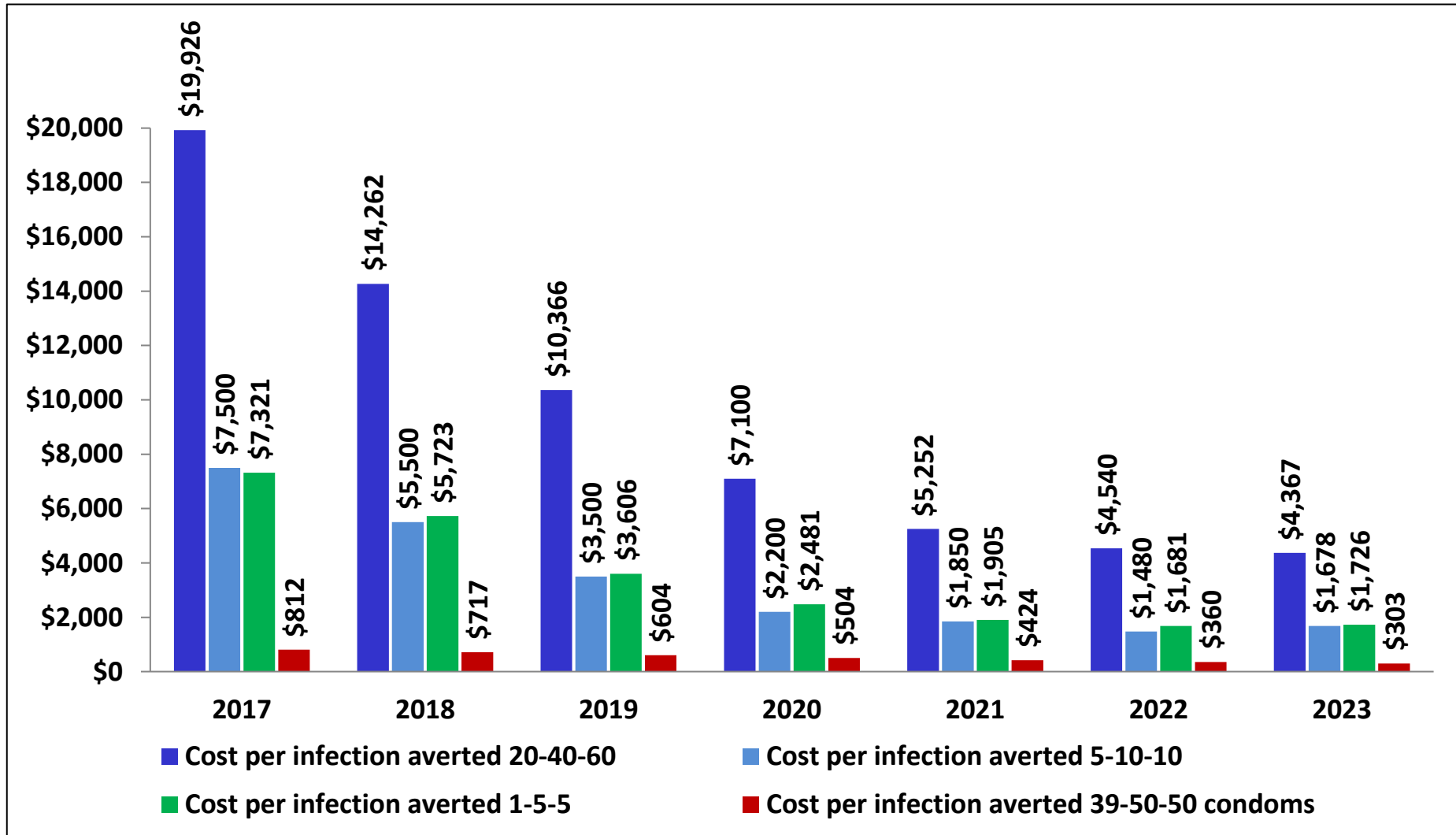
# Haiti: Total estimated intervention costs (in US\$ millions) for four prevention scenarios by year (2017-2023)



# Haiti: Estimated cumulative infections averted and people on PrEP: 4 prevention scenarios 2017-2023



# Haiti: Cost per Infection Averted: A Comparison of Four Prevention Scenarios



# Haiti: Results

Scenario	Intervention	Total Cost (over 7 years)	Total infections averted (over 7 years)	Average cost- effectiveness ratio (ACER)*	Incremental cost- effectiveness ratio (ICER)*
4	Condoms	\$4,620,000	690	\$6,696	\$6,696
3	PrEP 1-5-5	\$9,200,000	1,165	\$7,897	\$9,642 (weakly dominated) **
2	PrEP 5-10-10	\$19,250,000	2,528	\$7,615	\$7,373
1	PrEP 10-20-30	\$53,470,000	4,492	\$11,903	\$17,424

\*Effectiveness defined as infection prevented

\*\*ICER is higher than the next most effective program

# Haiti: Limitations

- Unit costs: Goals modelling does not permit the differentiation of costs for the initiates vs. on-going services
- Analysis is aligned with the period covered under new national HIV/AIDS strategy (2017-2023)
  - Modelling time period results under-estimates the benefit for averting a whole lifetime on ART
  - Over-estimates the cost per HIV infection averted

# Haiti: PrEP Implementation Timeline

Completed  
April 2018

- Revised HIV clinical guidelines include PrEP provision for population at high risk
- Endorsed the PrEP cost analysis report
- Established a PrEP TWG to guide PrEP implementation led by MoH
- Introduced HIV recency testing in 1 site (Port au Prince) with SoPs

In Process

Reviewing a draft national PrEP policy guiding the implementation

Finalizing regulatory requirements, supply chain, & lab processes

Working closely with G. Fund and PEPFAR to ensure drugs availability

Development of training & demand creation manuals and all related SoPs

Next Steps

Site selection for PrEP demo-project

Demand creation and final community consultations

Training of PrEP implementing sites & client enrolment

Finalise the evaluation protocol to explore the best ways to implement

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# Disclaimer

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## Thank You

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