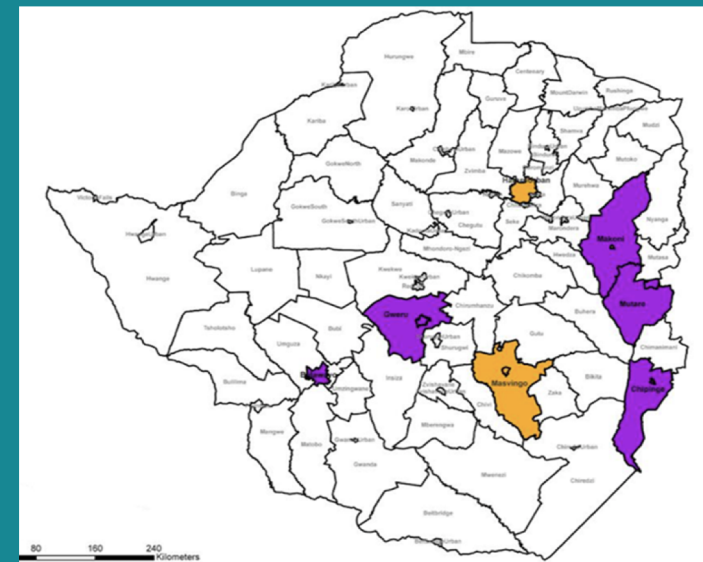


## THE COSTS OF PrEP IMPLEMENTATION ACROSS HIGH RISK POPULATIONS IN ZIMBABWE

***Collin Mangenah, Definate Nhamo,  
Fern Terris-Prestholt***  
***with PSI, Zimbabwe MOHCC & OPTIONS  
teams***

**6 DEC 2019, ICASA, Kigali**





# Background

- Zimbabwe is scaling up availability of oral PrEP to populations at high risk:
  - >3% incidence per year: AGYW (16 - 24), FSW, MSM
- Need to understand costs of actual implementation to inform:
  - Program budgeting, national scale-up & cost-effectiveness (PrEP-it modeling)



# Background

- Zimbabwe is scaling up availability of oral PrEP to populations at high risk:
  - >3% incidence per year: AGYW (16 - 24), FSW, MSM
- Need understanding on actual implementation costs to inform:
  - Program budgeting, national scale-up & cost-effectiveness (PrEP-it modeling)

## Costs of observed program implementation:

- Sample included all PrEP services implementing  $\geq 12$  months, Jan-Dec 2018:
  - 6 PSI Zimbabwe clinics
  - 1 government health facility
- Provider perspectives (full economic costs)
- Time & Motion (1-6 providers per site) in all facilities
- Total costs and unit cost per person
- Modeling cost per person year protected on PrEP (\$ppy)

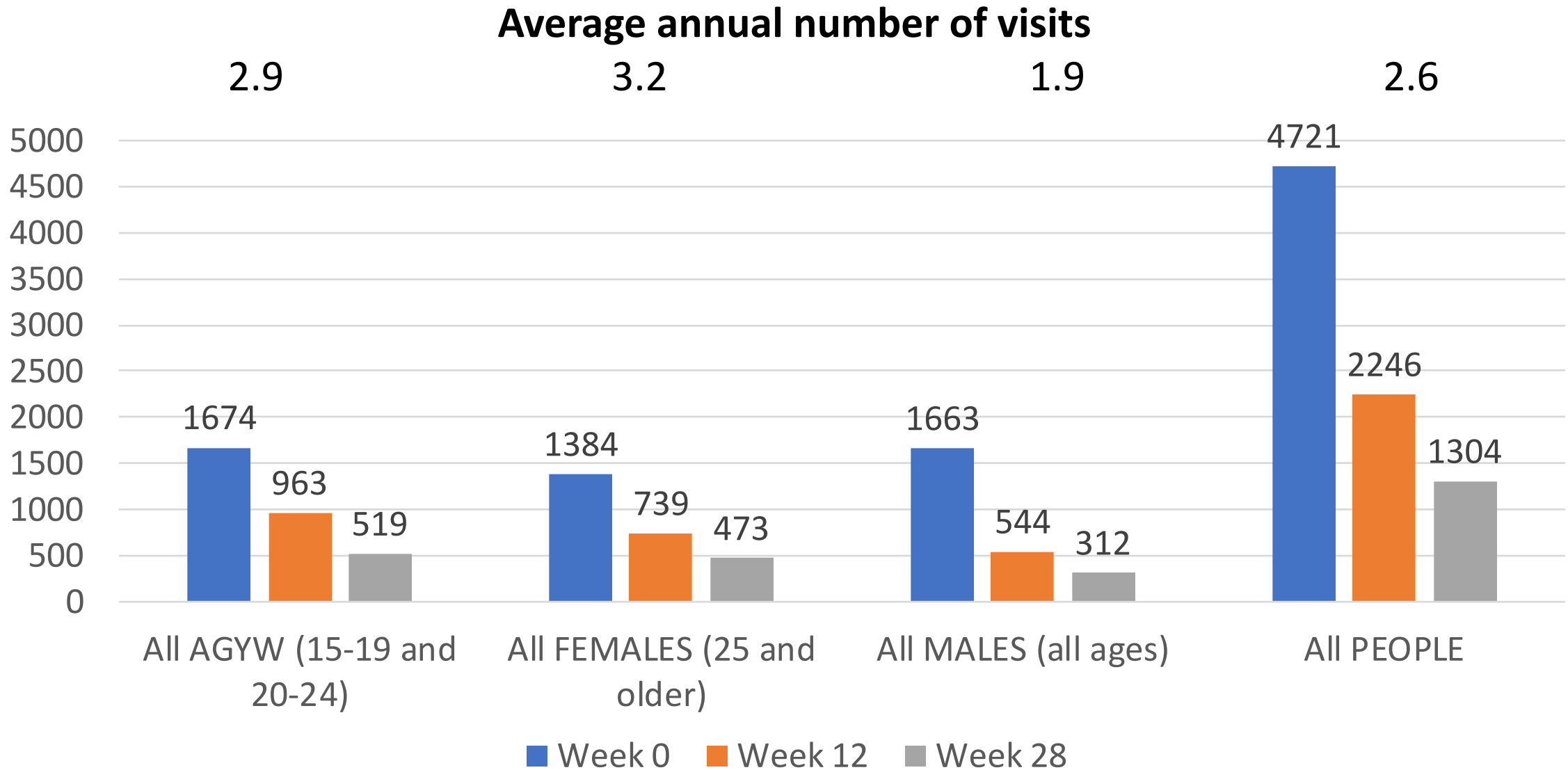


## Site characteristics

|                           | Site 1      | Site 2             | Site 3      | Site 4      | Site 5      | Site 6      | Site 7             |
|---------------------------|-------------|--------------------|-------------|-------------|-------------|-------------|--------------------|
| Management                | PSI         | PSI                | PSI         | PSI         | PSI         | PSI         | Public sector      |
| Site type                 | Stand-alone | City Health Clinic | Stand-alone | Stand-alone | Stand-alone | Stand-alone | City Health Clinic |
| Clinic size (visits/year) | 124,124     | 5,070              | 22,356      | 53,214      | 28,217      | 3,614       | 63,928             |
| PrEP prog start date      | Nov 2016    | Feb 2017           | Nov 2016    | Aug 2016    | Aug 2016    | Nov 2016    | Jun 2017           |
| Maturity (months)         | 29          | 27                 | 29          | 32          | 32          | 29          | 18                 |



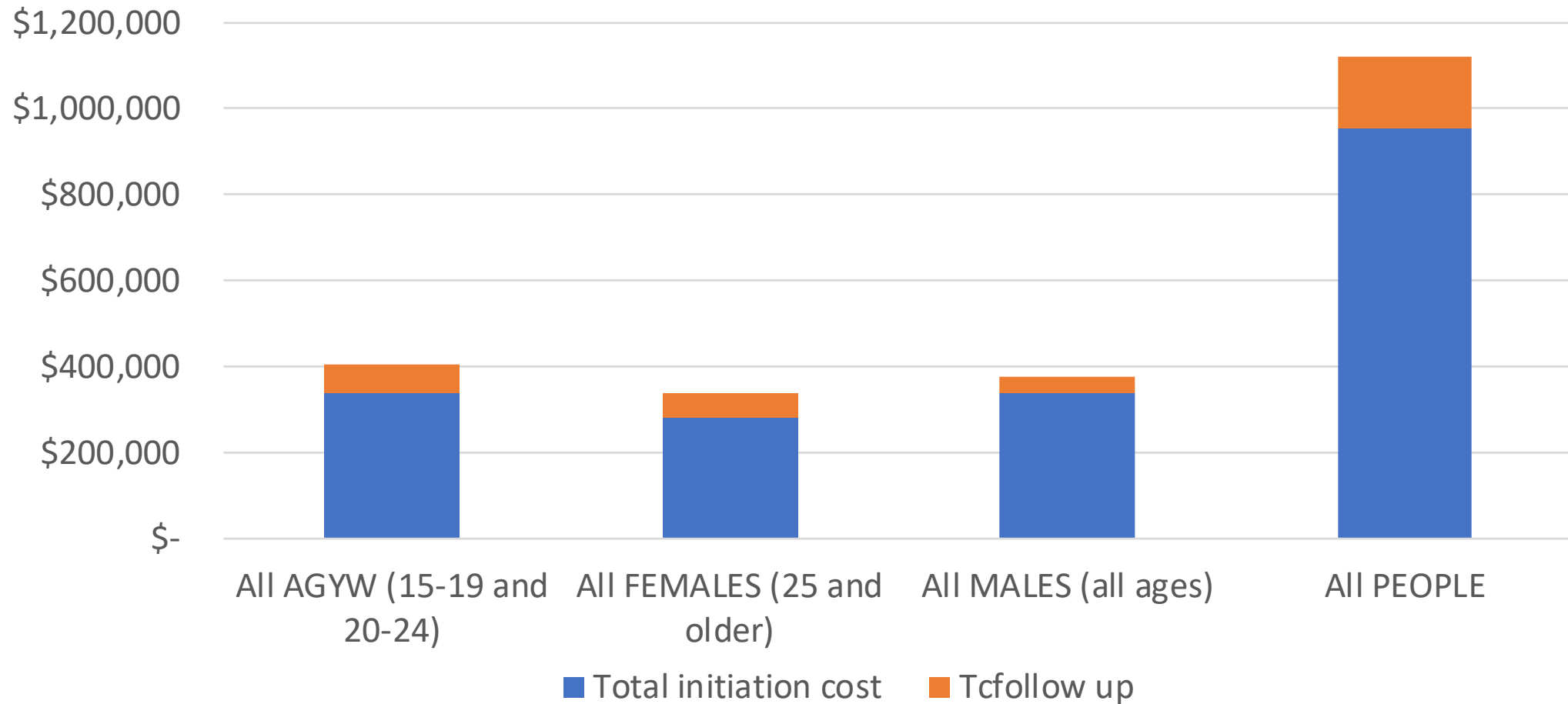
# Outputs: Initiations and continuation at months 3 and 6





# Total costs by population

Total cost= Ave \$ initiation visit \* # initiated by population  
+ Ave \$ follow up visit \* # of follow up visits by population





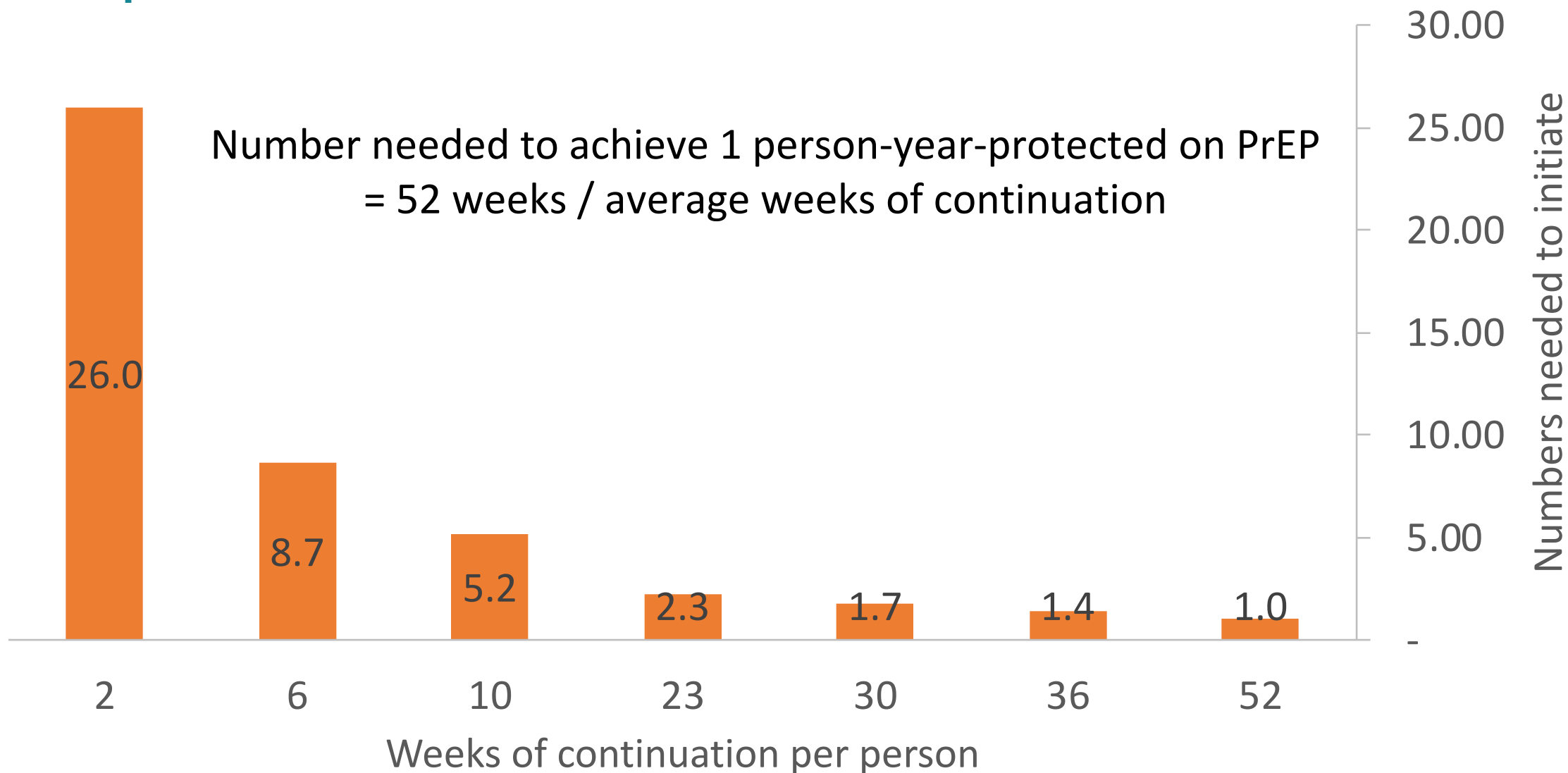
# Unit costs by population

|                            | Average cost per person initiated | Cross Facility (min - max ) |
|----------------------------|-----------------------------------|-----------------------------|
| All AGYW (15-19 and 20-24) | \$232                             | (\$217 - \$262)             |
| All FEMALES (25 and older) | \$236                             | (\$230 - \$263)             |
| All MALES (all ages)       | \$221                             | (\$210 - \$255)             |



# Cost per person year protected on PrEP:

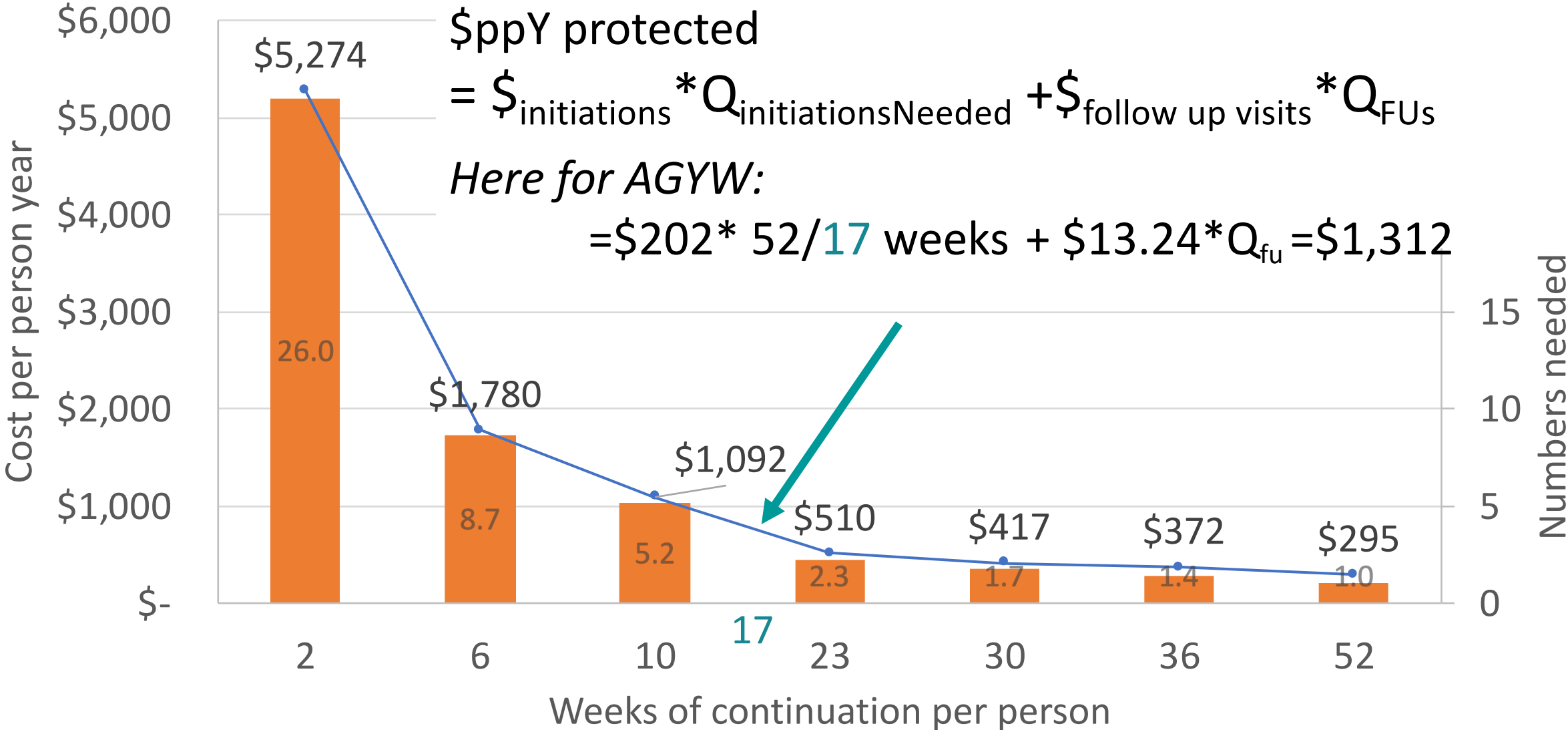
## Step 1: Estimate Number needed to initiate by continuation duration





# Cost per person year protected on PrEP:

## Step 2: Attach costs to Initiation and continuation duration





# Unit costs along the continuation cascade

|                        | Average continuation in weeks | Total cost per person year | Cross facility (min - max ) |
|------------------------|-------------------------------|----------------------------|-----------------------------|
| AGYW (15-19 and 20-24) | 17                            | \$1,312                    | (\$1,068 - \$2,452)         |
| FEMALES (25 and older) | 21                            | \$1,192                    | (\$1,045 - \$1,480)         |
| MALES (all ages)       | 11                            | \$1,646                    | (\$1,132 - \$4,512)         |



# Discussion

## ***Total Cost Drivers***

- Cost per person initiated similar across populations *BUT*
- More variation in cost per person year due to difference in **continuation** across populations.
  - Men show shortest continuation,
  - Adult women longest
- Huge drop in \$/ppY with higher continuation
- \$/initiation comparable to other estimates, but \$/continued client is higher

## ***Why do clients initiate but not continue PrEP?***

- Better targeting and support for continuation

## ***Future research & programmatic needs***

- Tracking longitudinal PrEP client data to better understand/measure PrEP cycling on & off



# Zimbabwe Costing Study Team

## CeSHHAR Zimbabwe

- Collin Mangenah
- Frances Cowan

## Pangaea Zimbabwe AIDS Trust

- Definate Nhamo
- Megan Dunbar

## LSHTM

- Fern Terris-Prestholt

## FHI 360

- Theresa Hoke
- Kristine Torjesen

## PSI

- Stephano Gudukeya
- Emily Gwavava
- Noah Taruberekera
- Ngonidzashe Madidi

## Zimbabwe MOHCC

- Getrude Ncube

## RTI International

- Sue Napierala

## Avenir Health

- Katharine Kripke

## City of Harare

- Hilda Bara

## Contacts:

Collin Mangenah [cmangenah1@gmail.com](mailto:cmangenah1@gmail.com)

Definate Nhamo [dnhamo@pzat.org](mailto:dnhamo@pzat.org)

[Fern.Terris-Prestholt@lshtm.ac.uk](mailto:Fern.Terris-Prestholt@lshtm.ac.uk)

