PROMISE 2021 Digital Health Landscape Report for Introduction of New HIV Prevention Products in Africa

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Envision FP
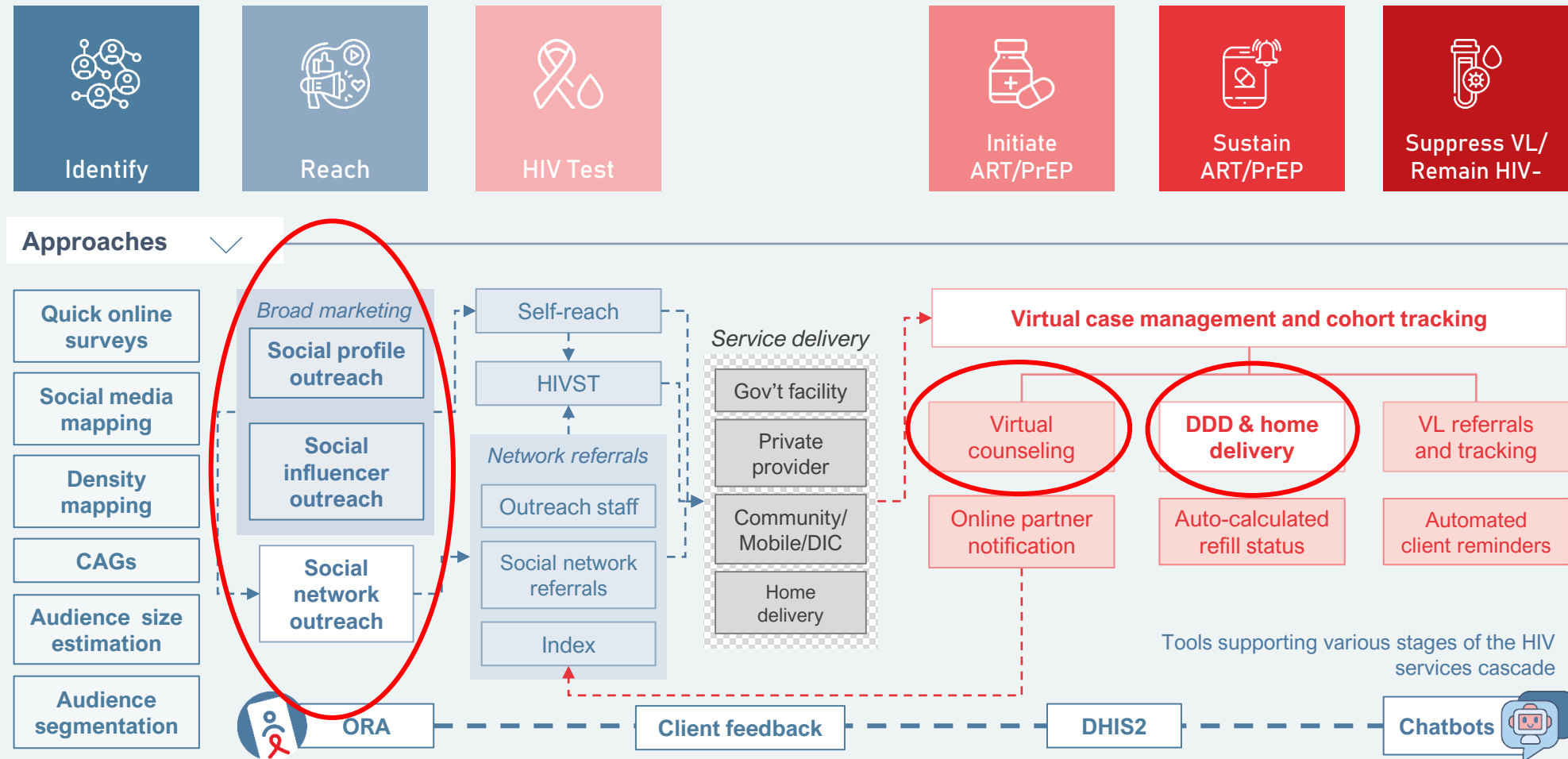
Report overview

PURPOSE

- To identify countries where virtual channels are best placed for demand creation, provision, and distribution of PrEP methods

- To provide an overview of existing virtual channels in priority countries that can be used to increase awareness and access of PrEP methods

Why go virtual?

- Broaden outreach to previously unreached audiences

- Connect with the growing mobile generation

- Provide clients with differentiated service delivery channels, including digitally-enabled self-care

- COVID-19 catalyzed opportunities for the use, and demonstrated the feasibility, of virtual solutions to promote, provide, and distribute health care commodities

Virtual solutions across the HIV cascade

| Identify | Reach | HIV Test | | Initiate ART/PrEP | Sustain ART/PrEP | Suppress VL/ Remain HIV– |

Approaches ⌄

| Quick online surveys |
| Social media mapping |
| Density mapping |
| CAGs |
| Audience size estimation |
| Audience segmentation |

Broad marketing
- **Social profile outreach**
- **Social influencer outreach**
- **Social network outreach**

- Self-reach
- HIVST

Network referrals
- Outreach staff
- Social network referrals
- Index

Service delivery
- Gov't facility
- Private provider
- Community/ Mobile/DIC
- Home delivery

Virtual case management and cohort tracking

| Virtual counseling | **DDD & home delivery** | VL referrals and tracking |
| Online partner notification | Auto-calculated refill status | Automated client reminders |

Tools supporting various stages of the HIV services cascade

ORA — Client feedback — DHIS2 — Chatbots

Specified audiences and countries

All adolescent girls and young women aged 15 to 24 years. Includes in- and out-of-school AGYW and/or those working in formal and informal sectors.

People aged 18 to 35 years who are pregnant or breastfeeding.

Women aged 18 to 35 years who have sexual relationships in exchange for money or other goods or services.

Male partners of primary target audiences (AGYW, PBFP, and female sex workers) aged 18 to 35 years. These individuals can be gate keepers and influence women's opinions and behaviors.

COUNTRIES OF FOCUS

West Africa
- Cote d'Ivoire
- Ghana
- *Nigeria*

East Africa
- *Kenya*
- *Uganda*
- Rwanda
- Tanzania
- Malawi

Southern Africa
- Botswana
- *Eswatini*
- *Lesotho*
- Mozambique
- Namibia
- *South Africa*
- *Zambia*
- *Zimbabwe*

Countries in *italicized bold* are initial focus countries.

Methods

- Desk reviews
  - Light review including all countries
  - In-depth review including 8 priority countries

- Online survey

- Follow up country meeting

- Validation and country feedback

Cross-cutting findings

1. Mobile connectivity continues to grow in sub-Saharan Africa, reaching 28% overall in 2020 compared to 13% in 2014.

2. Coverage gaps, areas where people are living that have no broadband network coverage, continues to decrease, and is now at approximately 19%

3. Gender and rural-urban gaps persist, with women 37% less likely to use mobile Internet than men

4. ehealth and mHealth activities, including linking and providing health care services, are rapidly expanding across Africa

In most countries over 50% of women report daily mobile use

Country	Country population (% urban)*	Proportion reporting daily mobile telephone use (% male / female)**	Proportion reporting daily mobile telephone use by both men and women, by age (%)**			
			18-25	26-35	36-45	46-55
Botswana	2.4 M (71%)	87% / 88%	93%	91%	92%	84%
Cote d'Ivoire	26 M (51%)	93% / 80%	88%	88%	87%	9%
Eswatini	1.2 M (24%)	87% / 81%	84%	91%	86%	82%
Ghana	31.4 M (58%)	88% / 80%	84%	88%	83%	82%
Kenya	54.4 M (56%)	88% / 83%	86%	87%	86%	91%
Lesotho	2.2 M (29%)	77% / 74%	85%	82%	83%	68%
Malawi	19.4 M (18%)	54% / 37%	42%	52%	51%	47%
Mozambique	31.7 M (37%)	73% / 61%	68%	67%	70%	64%
Namibia	2.6 M (53%)	91% / 89%	92%	91%	88%	92%
Nigeria	208.8 M (52%)	90% / 74%	82%	85%	81%	78%
Rwanda	13.1 M (18%)	-	-	-	-	-
South Africa	59.7 M (68%)	88% / 86%	89%	90%	90%	82%
Tanzania	60.6 M (36%)	80% / 67%	72%	72%	83%	73%
Uganda	46.3 M (25%)	77% / 57%	67%	72%	67%	66%
Zambia	18.7 M (45%)	67% / 59%	64%	71%	62%	61%
Zimbabwe	15 M (32%)	74% / 67%	74%	77%	76%	77%

The majority of audiences can be reached by mobile phones, while internet and social media can reach subsegments
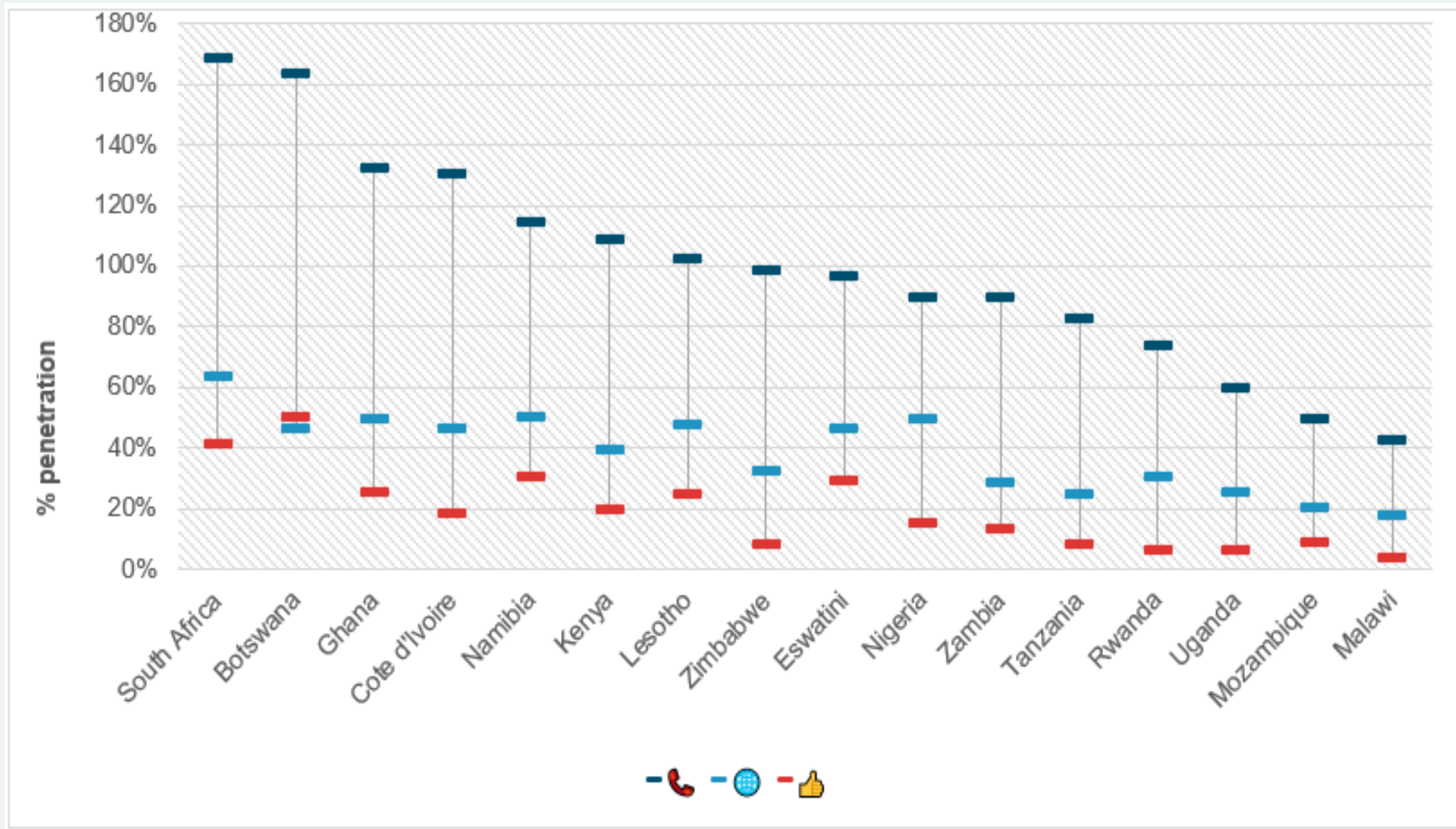
Metrics were used to categorize countries into nascent, moderate, and high potential

- Three metrics were used to categorize countries

    - **Mobile use penetration:** served to measure access to the technologies that would be required for a client to access online material

    - **Social media use by women:** served to estimate the penetration of social media among the specified audiences

    - **Share of past and present mhealth interventions:** served as a proxy of in-country capacity and infrastructure to support virtual interventions.

- We calculated overall scores to categorized countries into nascent, moderate, and high potential countries

Averages across metrics in each country were taken to calculate the score

Category	General characteristics	Recommendations	Countries
Nascent potential	Countries where there is limited mobile phone penetration combined with low social media use among the specified audience. Experience with past digital interventions exists but may be limited.	Focus on mobile interventions (SMS, voice calls) and smaller-scale pilot projects in urban centers may be best initially to assess effectiveness and inform future programming. Awareness raising campaigns through digital approaches most likely to succeed.	Rwanda, *Uganda*, Mozambique, Malawi
Moderate potential	Countries characterized by mobile phone penetration over 80%, and social media use among the specified audience is above 10%. All have prior experience with digital interventions.	Mobile interventions supplemented with social media interventions in urban centers with piloting in peri-urban settings. In urban settings awareness raising and service provision via digital approaches could work, while commodity delivery could be piloted.	Ghana, Namibia, Cote d'Ivoire, *Eswatini, Kenya, Lesotho, Nigeria,* Tanzania, *Zambia, and Zimbabwe*
High potential	Countries with mobile phone penetration over 100%, close to 100% social media use among the specified populations and significant experience with implementing digital interventions.	Highest likelihood of success in urban and peri-urban settings, with piloting in rural areas. Awareness raising, service delivery, and distribution using digital approaches likely to have some level of success.	Botswana, *South Africa*

Bold, italics: priority countries

Table of country scores

	National mobile connectivity	AGYW's social media use	Share of past and present mHealth platforms	Score	Classification
	(% mobile connections / total population)	(% of women age 15-34 using Facebook)	(mHealth platforms in country / total mHealth platforms across all countries)	Average (%)	
South Africa 🔍	169%	98%	24% (98)	97%	**High potential** (66-100%)
Botswana	164%	95%	3% (13)	87%	
Ghana	133%	53%	8% (31)	65%	**Moderate potential** (34-65%)
Namibia	115%	61%	1% (3)	59%	
Cote d'Ivoire	131%	38%	2% (8)	57%	
Eswatini 🔍	97%	71%	0% (1)	56%	
Kenya 🔍	109%	42%	12% (50)	54%	
Lesotho 🔍	103%	58%	1% (3)	54%	
Nigeria 🔍	90%	32%	12% (48)	45%	
Zambia 🔍	90%	30%	4% (18)	41%	
Zimbabwe 🔍	99%	11%	1% (5)	37%	
Tanzania	83%	20%	7% (30)	37%	
Rwanda	74%	15%	0% (0)	30%	**Nascent potential** (0-33%)
Uganda 🔍	60%	12%	13% (54)	28%	
Mozambique	50%	20%	4% (18)	25%	
Malawi	43%	7%	8% (33)	19%	

🔍 Focus countries

Note: Colors indicate potential with red indicating nascent potential, orange moderate potential, and green high potential. Shades are used to indicate the level of potential within each category, with a lighter shade indicating a lower position within the range and darker shades indicating a higher position within the range.

Country-specific results

- Focus on 8 priority countries

  – Categorization

  – Key indicators

  – Additional information

  – Recommendations

Eswatini: high connectivity & social media use but less experience with digital approaches

MODERATE POTENTIAL

KEY INDICATORS

Scored 56% across all indicators

- 97% mobile connectivity
- 75% of AGYW have a Facebook profile
- 89% female literacy rate

ADDITIONAL INFORMATION

- Several existing awareness raising digital platforms, but fewer service delivery platforms

RECOMMENDATIONS

- The high literacy rate among women, the high use of social media and the annual growth in social media use indicate digital platforms may be a useful approach to reach and engage AGYW.

- Urban areas likely to succeed include Manzini and Mbabane, which make up 74% of AGYW Facebook users.

Kenya: High connectivity & experience with digital approaches but less social media use

MODERATE POTENTIAL

KEY INDICATORS

Scored 54% across all indicators

- 109% mobile connectivity
- 42% of AGYW have a Facebook profile
- 78% female literacy rate

ADDITIONAL INFORMATION

- Brand discovery is largely through social media and TV/radio

- Large number of awareness raising, service delivery, and commodity delivery digital solutions

RECOMMENDATIONS

- Because of the large number of interventions, the capacity within Kenya to support future efforts is most likely higher than other countries. In this setting, digital and online interventions may work to raise awareness and engagement in urban and peri-urban areas. Areas likely to succeed include Nairobi (51% of FB users aged 15-35), followed by Mombasa (8%) and Eldoret (4%)

Lesotho: high connectivity, some social media use but less experience with digital approaches

MODERATE POTENTIAL

Scored 54% across all indicators

KEY INDICATORS

- 103% mobile connectivity
- 58% of AGYW have a Facebook profile
- 78% female literacy rate

ADDITIONAL INFORMATION

- 30% of population live in urban setting

- Large number of awareness raising, limited-service delivery, and no commodity delivery digital solutions

RECOMMENDATIONS

- Categorization driven by Lesotho's high level of mobile phone penetration. It's high female literacy rate and use of Facebook among AGYW make digital approaches promising for this population.

Nigeria: high connectivity but lower social media use; good experience with digital approaches

MODERATE POTENTIAL

KEY INDICATORS

Scored 45% across all indicators

- 90% mobile connectivity
- 32% of AGYW have a Facebook profile
- 53% female literacy rate

ADDITIONAL INFORMATION

- Approximately half of the population live in urban setting; past studies indicate potential for digital approaches based on results. High degree of desire among health care professionals.

- Large number of awareness raising, limited-service delivery, and some commodity delivery digital solutions

RECOMMENDATIONS

- Relatively high potential for urban-based virtual interventions, which could extend to peri-urban settings. Important to pilot these among the target population given the lower-than-expected percentage of women accessing Facebook and the female literacy rate just above 50%. This could indicate less mobile access and use among the target population.

South Africa: very high connectivity, social media use and experience with digital solutions

HIGH POTENTIAL

KEY INDICATORS

Scored 97% across all indicators

- 167% mobile connectivity
- 98% of AGYW have a Facebook profile
- 87% female literacy rate

ADDITIONAL INFORMATION

- Users spend over 3 hrs./day on social media

- Large number of awareness raising, delivery, and commodity delivery digital solutions

RECOMMENDATIONS

- Digital interventions have a high likelihood of succeeding across South Africa, but pilots should be considered to assure the success of more resource intense approaches like online apps. This is particularly true in an environment where there are already a large amount of tools and apps the population is using, and where integration, rather than new builds, may make more sense.

Uganda: low connectivity and social media use but good experience with digital solutions

NASCENT POTENTIAL

KEY INDICATORS

Scored 28% across all indicators

- 60% mobile connectivity
- 12% of AGYW have a Facebook profile
- 71% female literacy rate

ADDITIONAL INFORMATION

- 25% of the population live in urban settings

- Extensive past history with digital interventions (54), implying in-country capacity to implement. Currently, has some awareness raising, service delivery, and commodity delivery approaches in place.

RECOMMENDATIONS

- Pilot projects in urban settings to inform roll out would be beneficial, particularly given the low percentage of women using social media and the overall mobile connectivity in the country.

Zambia: high connectivity & social media use but less experience with digital approaches

MODERATE POTENTIAL

KEY INDICATORS

Scored 41% across all indicators

- 90% mobile connectivity
- 31% of AGYW have a Facebook profile
- 83% female literacy rate

ADDITIONAL INFORMATION

- 45% of the population live in urban settings

- History with digital interventions, implying in-country capacity to implement. Currently, has some awareness raising, service delivery, and commodity delivery approaches in place.

RECOMMENDATIONS

- With just over one third of the target population having Facebook accounts and the country's high urbanization rate, digital interventions in urban centers should be considered and would likely be the most successful.

Zimbabwe: high connectivity & social media use but less experience with digital approaches

MODERATE POTENTIAL

KEY INDICATORS

Scored 37% across all indicators

- 99% mobile connectivity
- 11% of AGYW have a Facebook profile
- 88% female literacy rate

ADDITIONAL INFORMATION

- 30% of the population live in urban settings

- Has some awareness raising, service delivery, and commodity delivery approaches in place.

RECOMMENDATIONS

- Internet/social media use is not high and is very costly. Moderate potential is mainly related to mHealth interventions leveraging voice calling and SMS. Pilot projects in urban settings to inform roll out would be beneficial, particularly given the low percentage of women using social media and the country's limited experience with mHealth interventions.

DISCUSSION

What are USAID priorities for digital health? How do these findings align with those priorities?

Moving Forward

Operationalization of recommendations

Organize country consultations to assess opportunities to introduce or expand virtual or blended models of PrEP service delivery & agree on investment for digital approaches.

Develop digital strategy (April – July 2022)

Further explore, identify, and promote opportunities to leverage existing digital health platforms to support efforts.

Thank You!

For more information, please visit:

- https://www.ipmglobal.org/our-work/our-products/dapivirine-ring

- https://www.prepwatch.org/about-prep/dapivirine-ring/

PROMISE Implementing Partners