HIV Learning Network
The CQUIN Project for Differentiated Service Delivery

icap Global Health

Key population size mapping & estimation and its role in determining HIV testing and prevention priorities in Uganda

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Leveraging DSD Strategies to Optimize HIV Testing and Linkage Services
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Outline

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- Who have we missed identifying?
- Why KP size estimation and mapping
- KP size estimates in Uganda-Category and Geographical distribution
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- Use of KP estimate data to enhance linkage to prevention services
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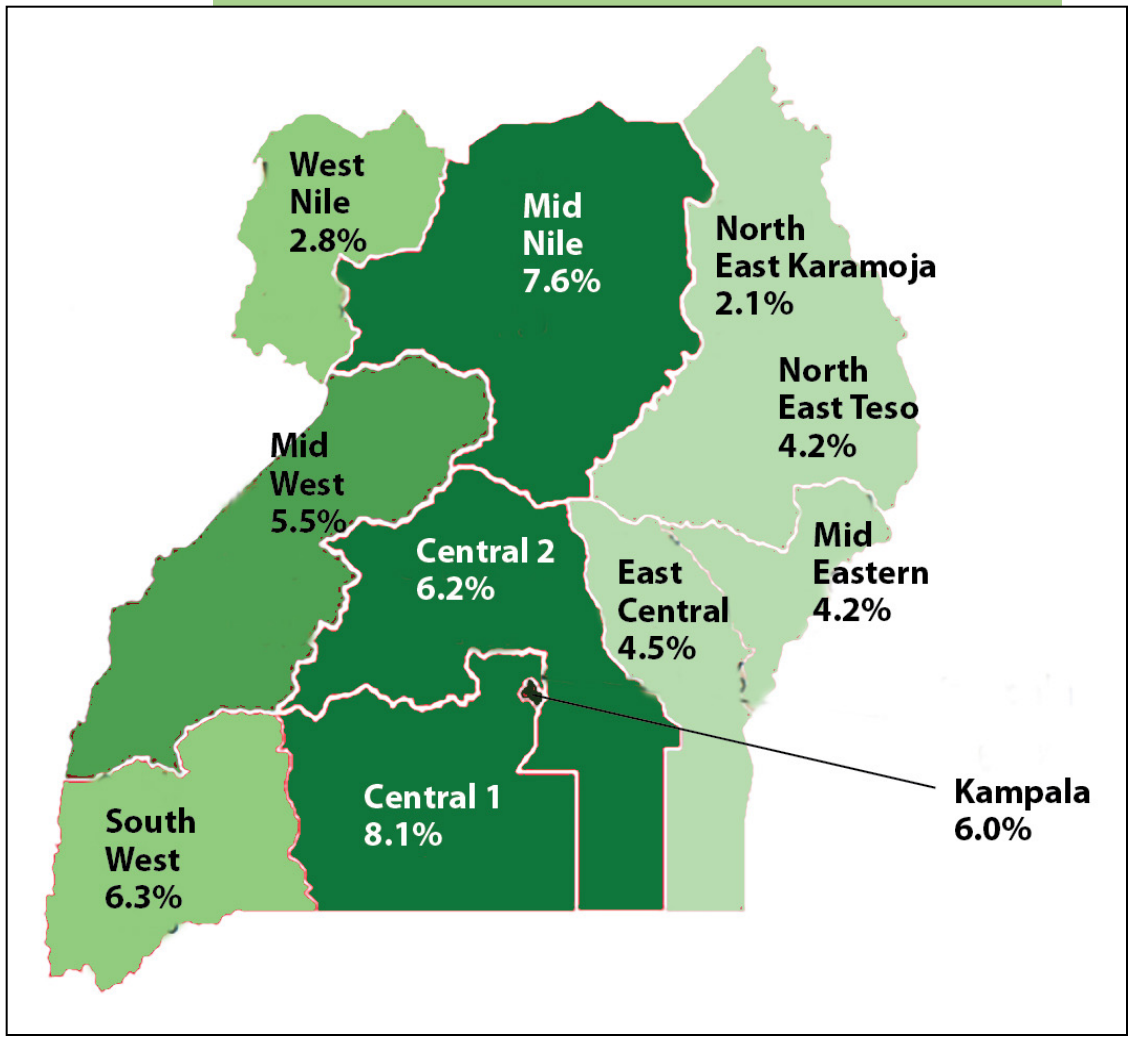
- Challenges and recommendations to KP size estimates

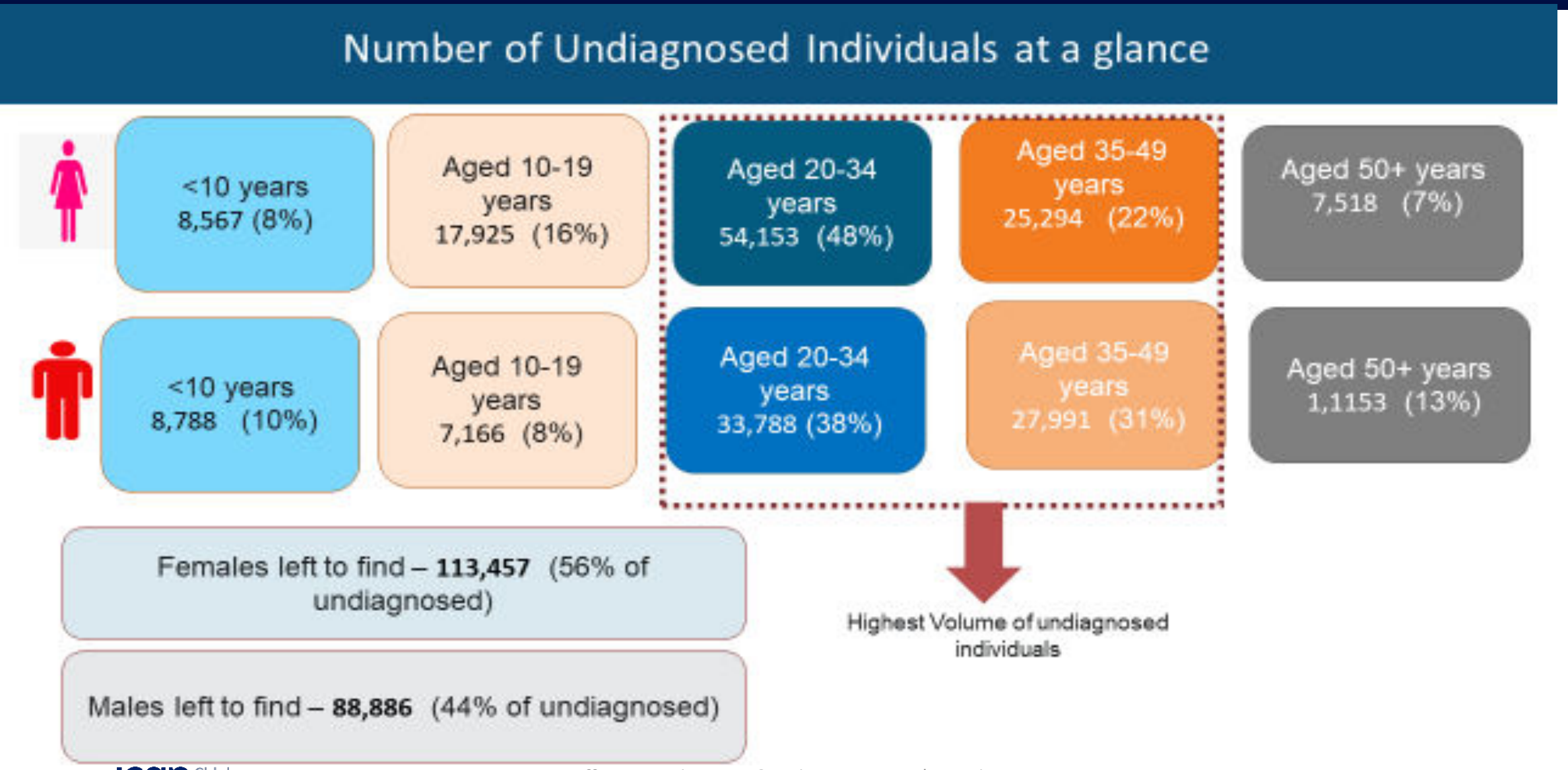
Uganda country HIV context-2022

Uganda-spectrum 2022	
Estimated PLHIV	1,433,337
• Male	535,752 (37%)
• Female	897,585 (63%)
Prevalence (15-49)	5.07
Number of new HIV infections	51,516
• Male	18,506 (36%)
• Female	33,010 (64%)
Incidence per 1000	1.21
• Male	0.88
• Female	1.55

PLHIV on ART: 1,356,472 (94.6%)



Who have we missed identifying?



Why KP Size estimation and mapping?

- **AIM:** understand the size of KP, location, and level of HIV services utilization
- Done periodically(2-5years) to respond to the migratory nature of KP
- Spectrum modeling estimated 54,000 new HIV infections in 2021
  21% among key populations who constitute only 5% of the total population
- Current epidemic response - less targeted to KP as foci of new infections
- Lack of reliable data affects targeting of KP with appropriate interventions
- Currently IBBS is the mainstay for KP size and mapping exercise but criticized for the expertise and cost required
- ***Question: what methods is Uganda using to guide planning for delivery of KP-targeted V and health services?***

KP size estimate approaches in Uganda

- **Four approaches have been employed to estimate KP sizes and determine KP services delivery gaps**
  - ❖**Integrated Biological and Behavioural Surveillance (*IBBS)***
  - ❖**Biological and Behavioural Surveillance- (BBS-lite)**
  - ❖**Mode of transmission Study (MoT)**
  - ❖**Data triangulation**

KP size estimate approaches-definitions

Integrated Biological and Behavioural Surveillance (*IBBS)*

- Community-based systematic survey designed to assess risk behaviors and the prevalence of HIV and other sexually transmitted diseases among the most-at-risk populations, in order to improve tracking of the HIV epidemic and program planning.

Biological and Behavioural Surveillance- (BBS-lite)

- A survey methodology developed by WHO and UNAIDS as a lite version of bio-behavioral survey hence BBS-lite-survey. Cheaper, less intense, less costly and can be done locally by services providers (NB undergoing further modification after the pilot in Uganda & Ukraine)

Mode of transmission Study (MoT)

- A mathematical modelling approach - used to quantify the distribution of new HIV infections according to different individual characteristics

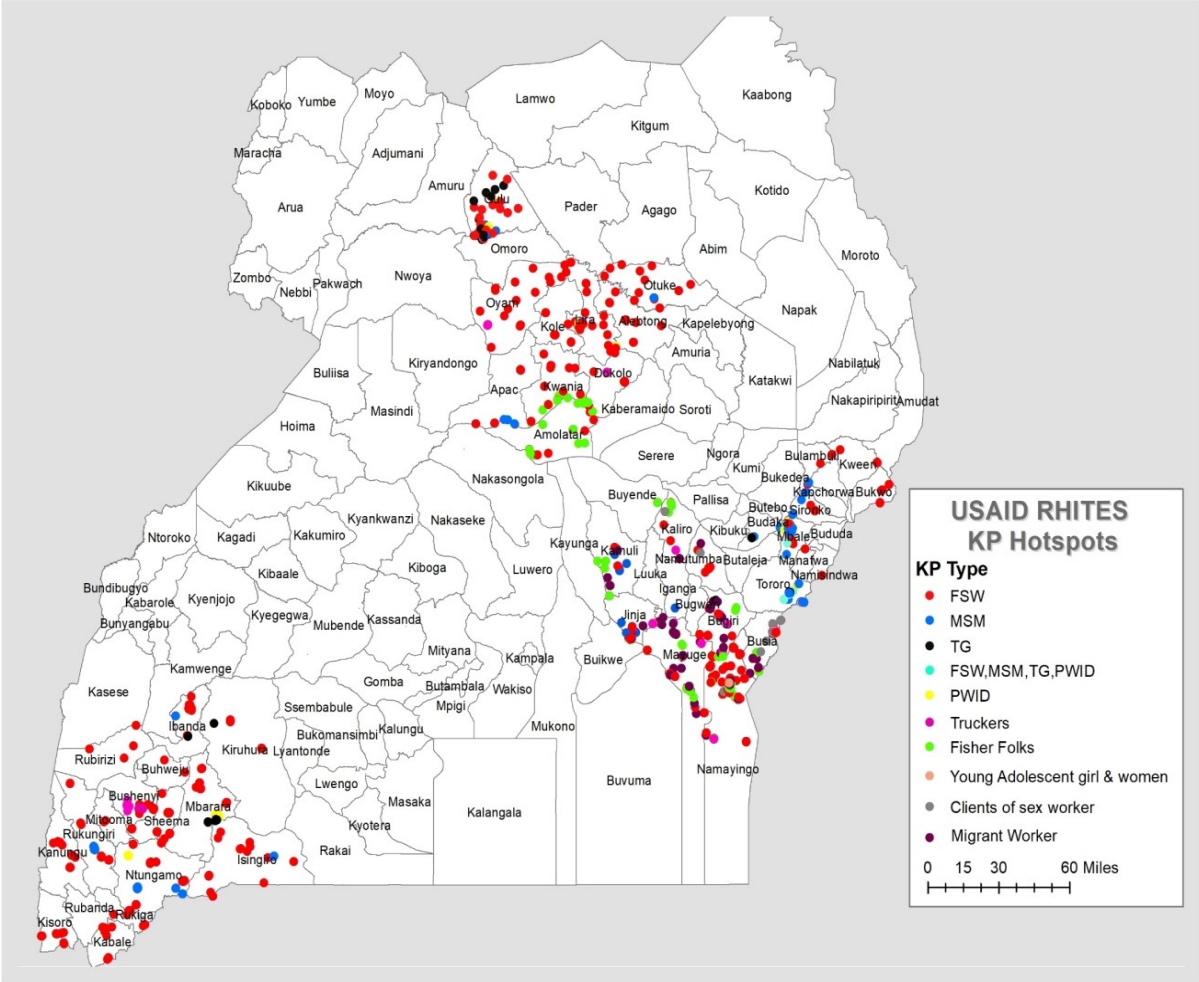
Data triangulation

- Uses data retrieved from a variety of data sources, including time, space and persons (at the national or regional levels)

Uganda KP and PP size estimates? (Mode of transmission Study-MOT study 2022)

HIV prevalence is disproportionately higher among KPs compared to the General population (5.5%)

Key Population group	Size estimate	HIV prevalence
Men who have sex with men	44,397	12.7%
Female sex workers	179,116	31.3%
Men who inject drugs	6,094	8%
Women who inject drugs	1,075	24%
Prison Population	157,350	15%
Transgender people	8,435	20%



The BBS lite-approach in Uganda (case study)

BBS-Lite conducted in 3 districts in Eastern Uganda (2021)as part of the pilot in Uganda & Ukraine

Steps taken:

- ❖ Protocol development with community consultations (districts, health facilities, CSOs, and CBOs)
- ❖ Training of health workers and peers as data collectors and piloting of data collection tools
- ❖ Developing and uploading of data collection tools to the online ODK
- ❖ Districts entry meetings
- ❖ Data collections
- ❖ Data analysis and report write up
- ❖ Data validation and dissemination

The BBS lite-approach-Results

Sex workers(859)

	Female	99.2%
	Male	0.2%
	Transgender	0.6%
	Median age (IQR)	27 years (23, 30)
Condom use last 3 sex encounters with clients	Did not use at all	17.1%
	One time	18.5%
	Two times	24.2%
	Three times	**40.2%**
Received condoms/lubricant from program:	In last 1 month	43.3%
	In last 3 months	18.0%
	In last 6 months	10.4%
	> Last 6 months	6.5%
	Never	**21.8%**
Use of PrEP:	In last 1 week	13.8%
	In last 6 months	15.5%
	> Last 6 months	10.6%
	Never	**60.1%**
Tested for STIs:	In last 1 month	27.4%
	In last 3 months	15.5%
	In last 6 months	7.6%
	> Last 6 months	7.0%
	Never	**42.6%**
	HIV positive	**19.3%**
	HIV positive who knew status	**73.5%**
	HIV positive on ART	**72.9%**

People who inject drugs(417)

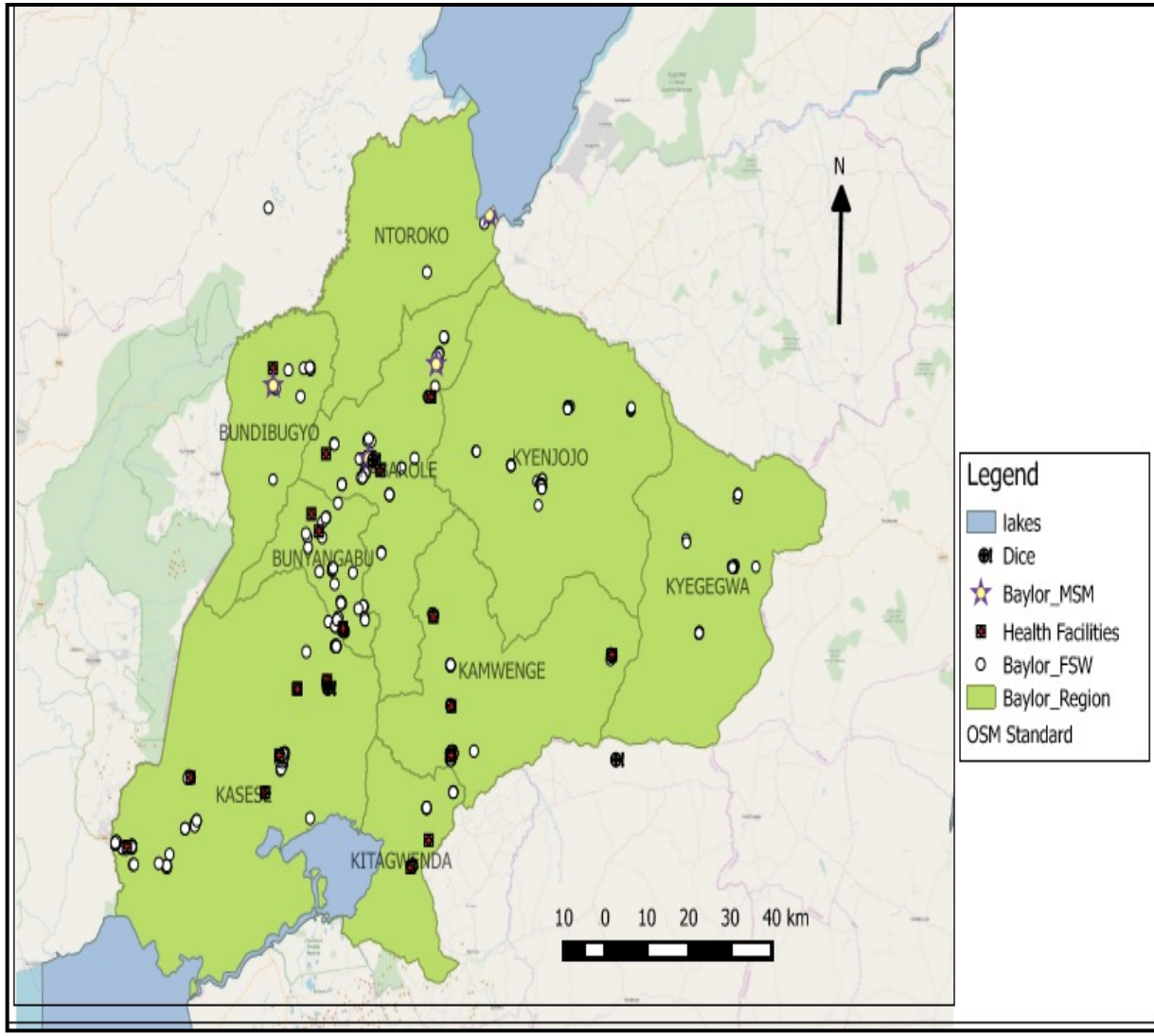
	Female	5.0%
	Male	94.5%
	Transgender	0.5%
	Median age (IQR)	25 years (23, 29)
Frequency of injection:	Daily or almost daily	21.8%
	Weekly	28.8%
	Monthly	36.0%
	Les than monthly	13.4%
Primary drug of choice	**Heroin**	**43.9%**
	Cocaine	42.7%
	Pharmaceutical opioids	3.6%
	Methamphetamine	6.0%
	Other	3.8%
Use of PrEP:	In last 1 week	9.5%
	In last 6 months	22.0%
	> Last 6 months	7.6%
	Never	**60.9%**
Received needles and syringes from program:	In last 1 month	8.2%
	In last 3 months	11.5%
	In last 6 months	4.6%
	> Last 6 months	1.7%
	Never	**74.1%**
	HIV positive	**3.6%**
	HIV positive who knew status	**52.8%**
	HIV positive on ART	**53.3%**

Lessons learnt from BBS-lite

- BBS-lite provides a simple methodology to understand the extent of HIV prevalence among KP and levels of health service access, while using minimal resources
- BBS-lite empowers local health managers to general data for local use
- Local communities can take the lead in refining data collection tools, data collection and validation of results
- BBS-lite study takes a short time to conduct and provides results able to inform decision making and implementation in 'real time'
- Recruiting from outreach and through chain-referral is able to reach KP who have not previously accessed services and who may be engaged in services and benefit from them
- Utilizing local health and peer workers as data collectors is possible and does not disrupt service provision or become too great a burden on workload – community engagement
- Data can be collected for different study populations at the same locations and during the same time period

How KP size estimate data has been used to inform KP program services

- Setting up DICs in hotspots
- Planning for KP focused ,mobile community services including community ART initiation
- Determining saturation and inform planning for strategic KP locations
- Budgeting and resources allocation for KP programs
- Monitoring trends in HIV risk acquisition



Tacking KP service delivery in Uganda-KP/PP prevention cascade Oct –Dec 2022

Category	Reached with Preventive services	Received HTS services	Identified HIV Positive	Linked into care	Known HIV Positive	Currently in Care	Eligible for VL	VL suppre
MSM	11825	11147	79	74	502	550	219	188
FSW	81895	67788	1405	1384	8058	9098	3698	3286
People in Prison	28859	20259	464	447	4537	4868	2482	2255
PWID	2094	1896	53	49	175	218	62	53
Transgender	2158	2084	27	26	54	69	17	12
Clients of FSW	24422	19900	337	329	1056	1321	455	390
Discordant Couple	7633	4597	10	9	2288	2294	990	918
Truckers	2192	1131	33	33	948	966	356	334
Uniformed forces	2251	1224	25	22	523	532	186	170
Fisher fork	7449	4726	209	209	1842	2017	554	493
Other(PP)	4437	3207	61	61	648	688	393	363
Overall total	**175,215**	**137959**	**2703**	**2643**	**20631**	**22621**	**9412**	**8462**

Challenges to KP size estimates

- Routine data systems have not been fully developed and utilized to respond to the needs of KP programming
- Local expertise to conduct the studies is limited
- Some approaches are too costly and intense to provide regular data visa viz the timeliness for conducting these surveys to respond to their migratory nature
- In countries where KP behaviors are illegal, there is high stigma and lack of commitment to integrating KP in population-based surveys
- All previous studies are sub-national – limits data utilization
- Lack of standard agreed methods: Different approaches yield variable results for the same populations

Recommendations

- **Adopt sustainable, less intense easy to use method for size estimate**
- **Agree on standard methods for data collection and analysis**
- **Continue to build local capacity to conduct these studies**
- **Community engagement is key to encouraging utility of data locally**

Thank you!