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The status quo on existing routine health information management systems that have incorporated key population unique identifier codes in Sub-Saharan Africa: A systematic review.

Mashudu Rampilo[1], Edith Phalane[1], Refilwe Nancy Phaswana-Mafuya[1]

1 South African Medical Research Council/University of Johannesburg (SAMRC/UJ) Pan African Centre for Epidemics Research (PACER) Extramural Unit, Faculty of Health Sciences, Johannesburg, South Africa.

This systematic review found that only nine out of 53 Sub-Saharan African (SSA) countries (Kenya, Uganda, Ghana, Mali, Burkina Faso, Togo, Burundi, Liberia, and Malawi), have integrated the key population's unique identifier code into their government's routine health information management systems using alphanumeric codes.

BACKGROUND

- Despite having the world's largest human immunodeficiency virus (HIV) epidemic, Sub-Saharan Africa (SSA) including South Africa has not yet achieved the 95-95-95 targets[1].
- To meet these targets, accurate and reliable key populations (KPs) disaggregated data is critical for guiding the HIV response[2].
- The inclusion of KPs unique identifier code (UIC) in the country's routine health information management systems (RHIMS) can improve targeted resource allocation, reporting, and accountability[3].
- The adoption of KPs UIC will improve person-centred HIV patient monitoring and case surveillance in South Africa, guide targeted interventions, ultimately save limited resources, and achieve greater impact.
- This study thus aimed to review published and grey literature and understand how other Sub-Saharan African countries included KPs UIC on their RHIMS.

METHODS

- A comprehensive search of five electronic databases was conducted: PubMed, Scopus, PLOS ONE, MEDLINE, Google Scholar, and multilateral organizations between 01st July 2023 and 31st June 2024.
- References were managed through RefWorks citation.
- Two authors (MR and EP) screened the studies using Covidence software for inclusion according to the eligibility criteria.
- The review was done according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Guidelines and registered on the International Prospective Register of Reviews (PROSPERO) (ID: CRD42023440656).

RESULTS

- Articles were scored for compliance with the 27- item PRISMA checklist
- Only 9 countries (Kenya, Uganda, Ghana, Mali, Burkina Faso, Togo, Burundi, Liberia, and Malawi) out of 53 SSA countries, constituting less than one-third, have integrated the KPs UIC into their government's RHIMS using alphanumeric codes as shown in Table 1 below.
- Four countries (44%) implemented KPs UIC nationally, while five (56%) implemented it sub-nationally.
- Implementation was deemed feasible and acceptable.
- Key resources for the implementation of UICs included funds, personnel, fingerprint scanners, tablets, electricity, internet, and alphanumeric code algorithms.

Table 1: Characteristics of studies included in the review

Authors, year	Country	Title	Key populations	UIC type	Level where UIC was incorporated on RHIMS
National AIDS and STI Commission Programme (NASCOP), 2015	Kenya	Unique identifier code for Key population programmes in Kenya	FSW/MSM/TG/PWUD/ PWID	Alphanumeric code	National
Ghana Aids Commission (GAC), 2020	Ghana	National HIV & AIDS strategic plan 2021-2025	FSW & MSM	Alphanumeric code	National
Rucinski et al., 2022	Malawi	HIV testing approaches to optimize prevention and treatment for Key and priority populations in Malawi	FSW, MSM, TGW & MSW	Alphanumeric code	Sub-national
West African Health Organization (WAHO), 2020	Togo	ECOWAS regional strategy for HIV, tuberculosis, hepatitis B & C and sexual and reproductive health and rights among key populations.	FSW, MSM, TGW & MSW	Alphanumeric code	National
Family Health International (FHI) 360, 2019	Liberia	LINKAGES Liberia quarterly progress report July 1 – September 30, 2019	MSM, FSW and TG	Alphanumeric code	National
Chapman et al, 2020	Uganda and Burundi	Changing the landscape of data and digital health solutions	FSW, TG, PWID, MSM, and people in prisons and closed settings	Alphanumeric code and Biometric fingerprint	Sub-national
Bore et al., 2017	Mali	Improving key population tracking and links to HIV Services using unique identifier codes in Mali	FWS, partners of FSW and MSM	Alphanumeric code	Sub-national
Zan et al., 2016	Burkina Faso and Togo	Strategies and resources for implementing HIV prevention, care, and treatment programming with key populations in West Africa.	FSW and MSM	Alphanumeric code	Sub-national

FSW: Female Sex Workers; MSM: Men Who Have Sex With Men; TG: Transgender; PWID: People Who Inject Drugs; PWUD: People Who Use Drugs

RESULTS CONTINUED

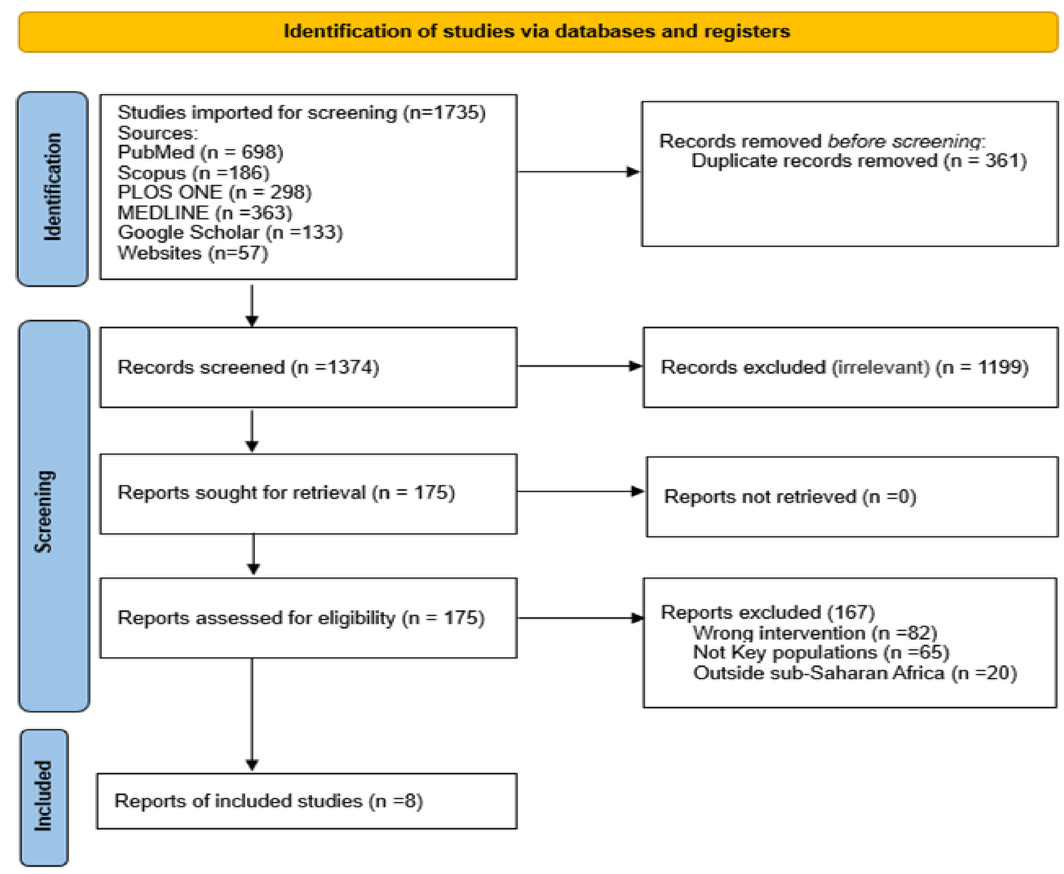

Figure 1: PRISMA flow diagram

CONCLUSION

- The implementation of KPs UIC was found to be feasible and acceptable in SSA settings.
- Despite this, many SSA countries still penalize KP activities due to poor criminal justice systems.
- Greater consideration should be given to policy change as a critical intervention.
- Next steps include piloting the inclusion of the KPS UIC in the SA routine health information management system.
- This will lead to data optimization, complete reporting, and programming.

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AUTHOR'S CONTACT INFORMATION

- rampilomi@gmail.com
- +27725726596