Key Population HIV Care & Treatment Cascade Dashboard User Manual and Guide

Background

The Key Population (KP) HIV Care & Treatment Cascades available on this platform were developed through a consultative process with key stakeholders, facilitated by the South African National AIDS Council (SANAC). SANAC established a KP cascades working group in September 2016 to develop HIV treatment cascades for KP in South Africa. Since then, this KP cascades working group has met and participated in three workshops and several teleconferences. Technical Advisors (TA) from the University of California, San Francisco (UCSF) have provided technical assistance to synthesize data from completed KP HIV Surveillance studies and worked with the group to develop a consensus-based approach towards developing uniform assumptions and methods to enable extrapolation of surveillance data for the development of sub-national treatment cascades for female sex workers (FSW) and Men who have Sex with Men (MSM). The cascades development process has been iterative, integrating advances in the fields of KP population size estimation and surveillance.

The KP cascades working group has endorsed developed cascades to inform multiple KP strategic planning processes, including PEFPAR Country Operational Planning (COP) in 2017, 2018 and 2019; SANAC's midterm reviews of the National Strategic Plan 2017-2022, and its companion National Sex Worker HIV Plan 2016-2019 and National Lesbian, gay, bisexual, transgender and intersex HIV Plan 2017-2022; and the previous and current round of Global Funded KP programs. This process has enabled diverse stakeholders to become familiar with existing KP surveillance and related data and build capacity around cascade development and utilization for planning, monitoring, evaluation and other purposes. It is envisioned that the KP cascades group will continue to meet at least annually to review these cascades and update them in relation to newly available data.

At the time this document, September 2019, the dashboard platform presents cascades' data for FSW, MSM and people who inject drugs (PWID).

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Visualization & Dashboard

Cascades are a method that are used to outline the steps of care that people go through when accessing a health service. HIV care & treatment cascades reflect the pathway people living with HIV go through from diagnosis towards achieving viral suppression. The cascade graphs depict the proportion of people engaged at each stage of the care pathway.

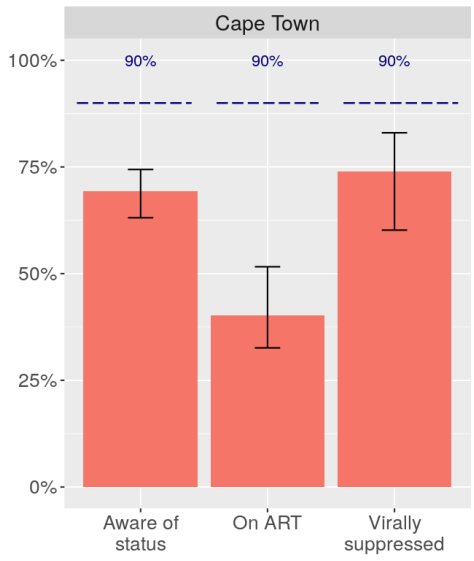
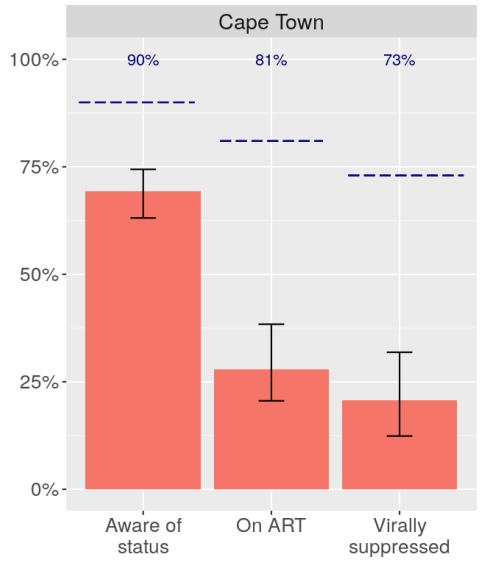
The following shiny website provides an interactive platform to upload and visualize HIV cascade data:

https://shiny.dide.imperial.ac.uk/kpcascade/

Care & Treatment cascades are available in two configurations - comparing the progress of a single population over time, or comparing multiple populations at a single point in time. If treatment cascades for the general population are uploaded, the latter configuration can assist with the visualization of the treatment gap.

There are two types for presenting the HIV care and treatment cascade. The 90-90-90 cascade defined as 90% of people living with HIV know their status, 90% of people who know their status are on ART, 90% of people on ART are virally suppressed. The 90-81-73 cascade define as 90% of people living with HIV know their status, 81% of people living with HIV are on ART, and 73% of people living with HIV are virally suppressed.

The dashboard presents two cascade types, 90-90-90 and 90-81-73 types. For the 90-90-90 type, the denominator for each step is the numerator for the previous step in the cascade. For example, for Cape Town, 69.3% of people living with HIV were aware of their status, 40.3% of those who were aware of their status were on ART and 73.9% of those who were on ART were virally suppressed. For the 90-81-73 type, the denominator is fixed for each step and it is all people living with HIV. For example, for Cape Town, 69.3% of people living with HIV were aware of their status, 27.9% (i.e. 69.3%x40.3%) of people living with HIV were on ART, and 20.6% (i.e. 69.3%x40.3%x73.9%) of people living with HIV were virally suppressed.

Example for a Cascade type: 90-90-90	Example for a Cascade type: 90-81-73
	

Footnote:

- The error bars are 95% confidence intervals.
- The horizontal dash-lines are global targets.
- 90-90-90: Conditional estimates are calculated out of people in the previous step in the cascade.
- 90-81-73: Non-conditional estimates calculated out of all people living with HIV.

Uploading New Data

KP Cascade has data preloaded for FSW from the South African Health Monitoring Survey (SAHMS 2014 and 2018), MSM from the South Africa Men's Health Monitoring Survey (SAMHMS 2013, 2016 and 2018), and PWID from the South African TipVal Study (2017). The cascade estimates for districts with no local survey data were also estimated by an extrapolation exercise conducted by stakeholder consensus meetings.

If you have data and you would like to see how your data informs these estimates, please download the template from dashboard (example in Appendix 1) and upload the amended file. If you have data and would like to upload them,

Please ensure that:

- Prevalence and treatment cascade data are entered as decimals, not percentage
- Cascade data are of the form 90-90-90, not 90-81-73
- Row names for the cascade status are exact matches to those given in the template

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- There is only a single value for each unique combination of identification variables (e.g. No more than 1 size estimate for FSW in Johannesburg in 2018)
- If for example you do not have viral suppression data for a year for a population, keep the line but do not put any data for the point, lower and upper estimates (e.g. row 20 in the Appendix 1)

Please note that whenever you upload your own data, you can see the visualization of your data till the time you close the web browser. So, save the graphs and visualization for later use, otherwise you need to upload your data again when you reopen the shiny website.

Appendix 1

	Cascade.status	KP	Year	City.Region	Point.Estimate	Lower.Bound	Upper.Bound
1	Size Estimate	FSW	2018	Johannesburg	7,981	5,534	11,013
2	Prevalence	FSW	2018	Johannesburg	0.583	0.527	0.639
3	Aware of Status	FSW	2018	Johannesburg	0.812	0.756	0.867
4	On ART	FSW	2018	Johannesburg	0.749	0.67	0.827
5	Virally Suppressed	FSW	2018	Johannesburg	0.874	0.818	0.928
6	Size Estimate	FSW	2018	Cape Town	6,678	4,559	9,204
7	Prevalence	FSW	2018	Cape Town	0.425	0.370	0.480
8	Aware of Status	FSW	2018	Cape Town	0.734	0.664	0.804
9	On ART	FSW	2018	Cape Town	0.414	0.297	0.532
10	Virally Suppressed	FSW	2018	Cape Town	0.725	0.557	0.886
11	Size Estimate	FSW	2018	Durban	9,304	8,622	10,001
12	Prevalence	FSW	2018	Durban	0.778	0.727	0.828
13	Aware of Status	FSW	2018	Durban	0.878	0.84	0.916
14	On ART	FSW	2018	Durban	0.62	0.528	0.711
15	Virally Suppressed	FSW	2018	Durban	0.848	0.786	0.909
16	Size Estimate	FSW	2014	Johannesburg	7,697	5,000	10,895
17	Prevalence	FSW	2014	Johannesburg	0.718	0.565	0.812
18	Aware of Status	FSW	2014	Johannesburg	0.738	0.589	0.887
19	On ART	FSW	2014	Johannesburg	0.234	0.088	0.506
20	Virally Suppressed	FSW	2014	Johannesburg	0.8		
21	Size Estimate	FSW	2014	Cape Town	6,500	4,579	9,000
22	Prevalence	FSW	2014	Cape Town	0.397	0.301	0.498
23	Aware of Status	FSW	2014	Cape Town	0.567	0.402	0.732
24	On ART	FSW	2014	Cape Town	0.453	0.258	0.686
25	Virally Suppressed	FSW	2014	Cape Town	0.8		
26	Size Estimate	FSW	2014	Durban	9,323	4,000	10,000
27	Prevalence	FSW	2014	Durban	0.535	0.375	0.655
28	Aware of Status	FSW	2014	Durban	0.77	0.617	0.923
29	On ART	FSW	2014	Durban	0.359	0.263	0.517
30	Virally Suppressed	FSW	2014	Durban	0.8		

Technical Team: Oli Stevens[1], Zachary Isdahl[2], Mike Grasso[2], Ali Mirzazadeh*[2]

1. UNAIDS Reference Group on Estimates, Modelling, and Projections - Imperial College
2. Institute for Global Health Sciences, University of California - San Francisco

* ali.mirzazadeh@ucsf.edu

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