







Toolkit Overview

The Global Evaluation of Microbicide Sensitivity (GEMS) monitors HIV drug resistance (HIVDR) in PrEP seroconverters in project-based and national roll-out programs in sub-Saharan Africa. GEMS activities include:

- Laboratory research to improve HIVDR testing assays and test diverse sample types for HIVDR using sensitive methods.
- Modeling to evaluate the impact of HIVDR on PrEP and antiretroviral treatment (ART) strategies.
- Technical support and policy guidance for HIVDR assessment in seroconverters to PrEP programs.
- Implementation of HIVDR monitoring strategies in select countries in sub-Saharan Africa.







GEMS developed toolkit materials to assist ministries of health, project implementers and policy makers monitor for HIVDR in PrEP rollout programs. GEMS toolkit items are described below and available on <https://www.prepwatch.org/gems/>.

Materials for Implementing Partners and Policy Makers



	PrEP and Drug Resistance Factsheet for Policy Makers	A brief overview of the risk of HIVDR while using PrEP and implications for overall PrEP rollout.
	Monitoring and Evaluation (M&E) Plan for Drug Resistance Programs	M&E indicators for ongoing, long-term, assessment of drug resistance risk.
	Policy Brief: ART Considerations for Individuals with Recent PrEP Use	Modeling findings and implications of drug resistance with PrEP on ART.
	HIV Testing Factsheet	An overview of current point of care HIV testing methods for consideration when developing testing algorithms for PrEP programs.
	HIV Drug Resistance Monitoring Protocol	An adaptable protocol template for stakeholders developing an HIVDR monitoring strategy.
	Manual of Procedures	An adaptable manual of procedures to standardize protocol implementation for HIVDR implementing partners.

APRIL 2021

Materials for Healthcare Workers

	PrEP and Drug Resistance Factsheet for Health Care Workers	A brief overview of the risk of HIVDR while using PrEP; with a focus on key counseling messages for PrEP users and health care workers.
	PrEP and Drug Resistance Training Slides	Training materials for health care workers and project implementers; topics include background on HIVDR, risk of HIVDR with PrEP, sample collection and testing, interpreting HIVDR results, and counseling considerations.
	Dried Blood Spot (DBS) Job Aid for Resistance Testing	A job aid to standardize DBS collection and shipment of samples for HIVDR testing.
	Training Video on DBS Collection	A “how-to” video that demonstrates procedures for collection and shipment of DBS samples.
	Acute Seroconversion Assessment Checklist	A clinical assessment tool for clinicians reviewing eligibility of PrEP use for clients; to limit HIVDR risk in cases of undetected infection.
	SOP for DBS Preparation from Venipuncture Blood	Standardized procedures across facilities for collection and shipment of DBS samples.

Materials for Laboratory Personnel

	SOP for Receiving DBS Sample Cards	Standardized procedures at the laboratory for receipt and testing of DBS samples.
	SOP for Next Generation Sequencing HIVDR Assay	Standardized procedures at the laboratory for use of a high-throughput HIVDR assay.

Descriptions and analyses of GEMS activities, presented at various conferences, are available at: <https://www.prepwatch.org/gems/>. Find out more at gems.pitt.edu or contact gems@pitt.edu.

APRIL 2021

