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### Background

- According to UNAIDS, HIV viral load (VL) coverage globally remains low and in South Africa the VL suppression numbers are decreasing
- In 2019, UNAIDS reported that viral load suppression in South Africa was 55%, which is 18 percentage points below the target of 73%
- Patients who are virally unsuppressed are considered a priority group because of their potential to spread HIV to sexual partners who are HIV negative
- Reviewing patient viral loads within geographic defined spaces can offer a better understanding of the following:
  - HIV surveillance
  - Enhanced HIV case finding
  - Opportunities for streamlined ART delivery models

# Objective

To identify facilities and patients with unsuppressed VL (uVL) to explore programmatic opportunities in terms of case finding, ART delivery methods, and HIV surveillance

#### Reviewing HIV Unsuppressed Viral Load Patient Level Data to Inform HIV Programmatic Opportunities among Priority Populations in 4 Districts in South Africa

### **Methods**

- Analysis of VL data of 466,280 HIV-positive pat standard first line anti-retroviral treatment (AR
- GIS mapping was used to measure 466,280 pat October 2018 and September 2019 from 316 p (GSD), King Cetshwayo (KCD), Nkangala (NKG)
- GIS mapping of facilities was used to show the virally unsuppressed in relation to the locations





of clients on ART had completed viral loads

of all clients or has an unsupp viral load

Each district showed differences across age and g

- NKG contributed to 37% of all uVL patients
- In KCD, 39% of recently diagnosed HIV-position
- In KCD, The highest percentages of newly dia in females the highest percentage was found
- In NKG, 37% of newly diagnosed males and
- In NKG, 75% of newly diagnosed males ages 15-24 years had an uVL



sitive patients, with supprenent (ART)	essed viral loads and uVL, on	• ( } {
5,280 patients on ART for 6 months or more between om 316 public health facilities in the Gert Sibande a (NKG) and uGu districts in South Africa		
how the size and disaggregation of patients who are locations of public health facilities		•   †
4.7%	37%	•
clients on ART nunsuppressed we viral load	of patients with uVL ere on ART for a period between 7-9 months	(
ge and gender categories: atients IIV-positive males were virally unsuppressed newly diagnosed males were 15-24 years old (68%); vas found in 35 - 44 year olds (44%) lles and females had an uVL		









## Conclusion

GIS maps disaggregated by age, gender, district and facility show the concentration of patients with uVL and indicate where resources and enhanced efforts in case finding, retention, and adherence should be focused

Data was used to inform facilities that have higher number of patients who need enhanced counselling, retention and adherence support via SMS, case management, appointment systems, and intensive clinical chart reviews

Next steps for this program will be to develop a viable protocol effectively and rigorously measuring the use of GIS software in HIV programming within these districts

