

# UPTAKE OF WHO RECOMMENDED HIV TESTING STRATEGIES:

An analysis of national policies on HIV testing services

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## INTRODUCTION

World Health Organization (WHO) recommends serial HIV testing strategies for high (>5%) and low (<5%) prevalence settings (see Fig. 1 and Fig. 2). In both strategies, rapid diagnostic tests (RDTs) within a validated national algorithm can accurately provide a diagnosis. However, recent publications show that poor quality testing, and inaccurate test results can occur leading to misdiagnosis of HIV status. In particular the use of a “tie-breaker” strategy, in which the result of a third assay is used to resolve discrepant results by ruling in an HIV-positive status. This review aims to assess the uptake of WHO testing strategies.

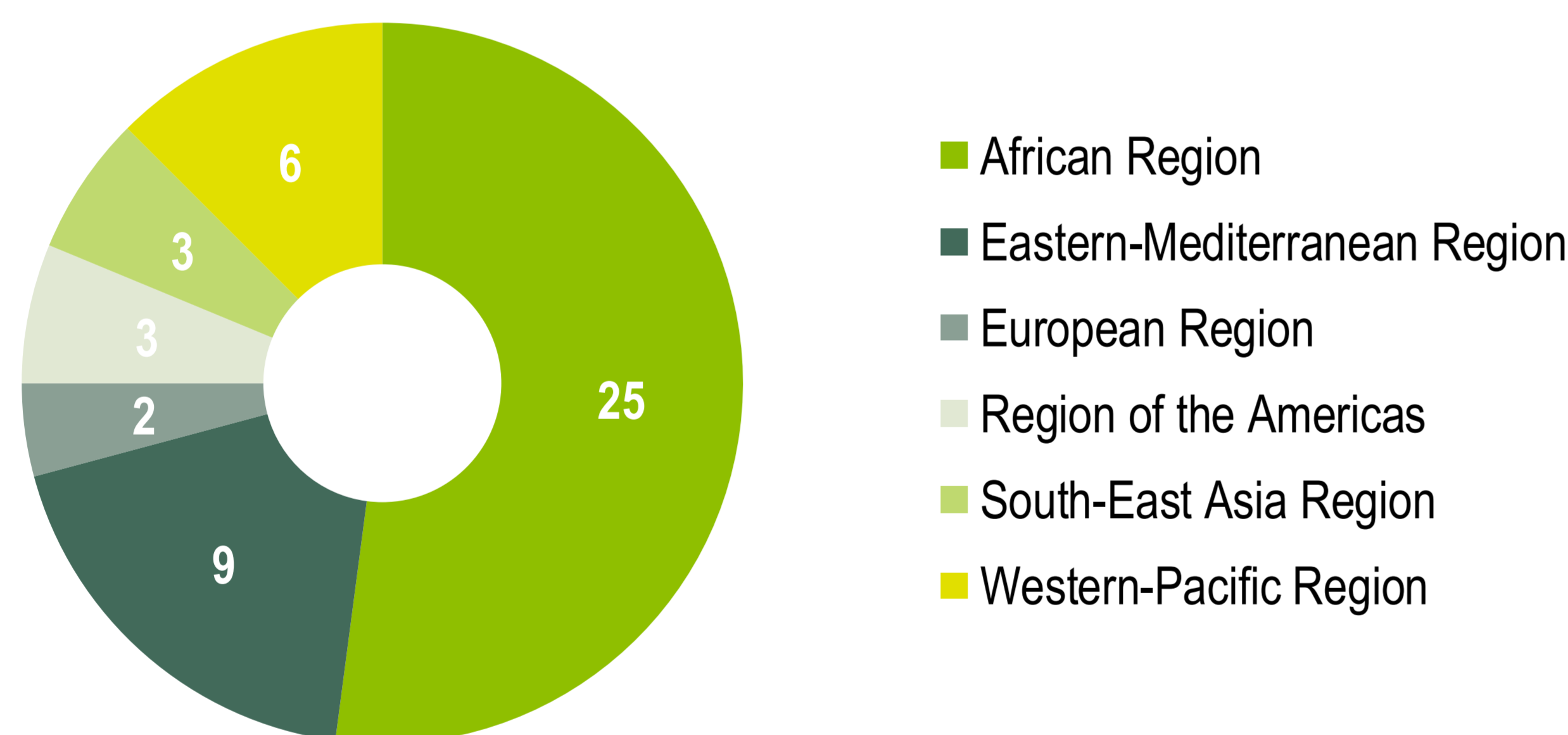
## METHODOLOGY

- From November 1- December 21 2015, we electronically searched for national policies on HIV testing services conducted, using WHO databases, Google, government and NGO websites. During this period, key experts including WHO and UNAIDS staff were contacted to identify additional information and policies.
- HIV testing standards and protocols developed by non-government organizations, donors and other technical agencies were excluded
- Disagreements between reviewers were solved through discussion and consensus.

## RESULTS

- 48/60 national HIV testing national policies were identified and included in this review.

Fig. 3. Number of national HIV testing policies by WHO region



### Analysis of all global testing strategies (n=48):

- 23% of testing strategies aligned with WHO recommendations.
- 63% did not align with WHO recommendations.
- 15% of policies had insufficient information.

### Sub-analysis of HIV testing strategies in the WHO African region (n=25):

- 8% of testing strategies align with WHO recommendations
- 72% did not align with WHO recommendations
- 20% of policies had insufficient information

## LIMITATIONS

- Only national HIV testing policies were reviewed. Some information on testing strategy may be in other official documents.
- No date restriction was applied. A number of the most recent country policies identified were published in 2012 or earlier.
- Some national policies were in the process of being updated during this review and may have been updated since the review took place.

Fig. 1. High prevalence (>5%) WHO recommended HIV testing strategy

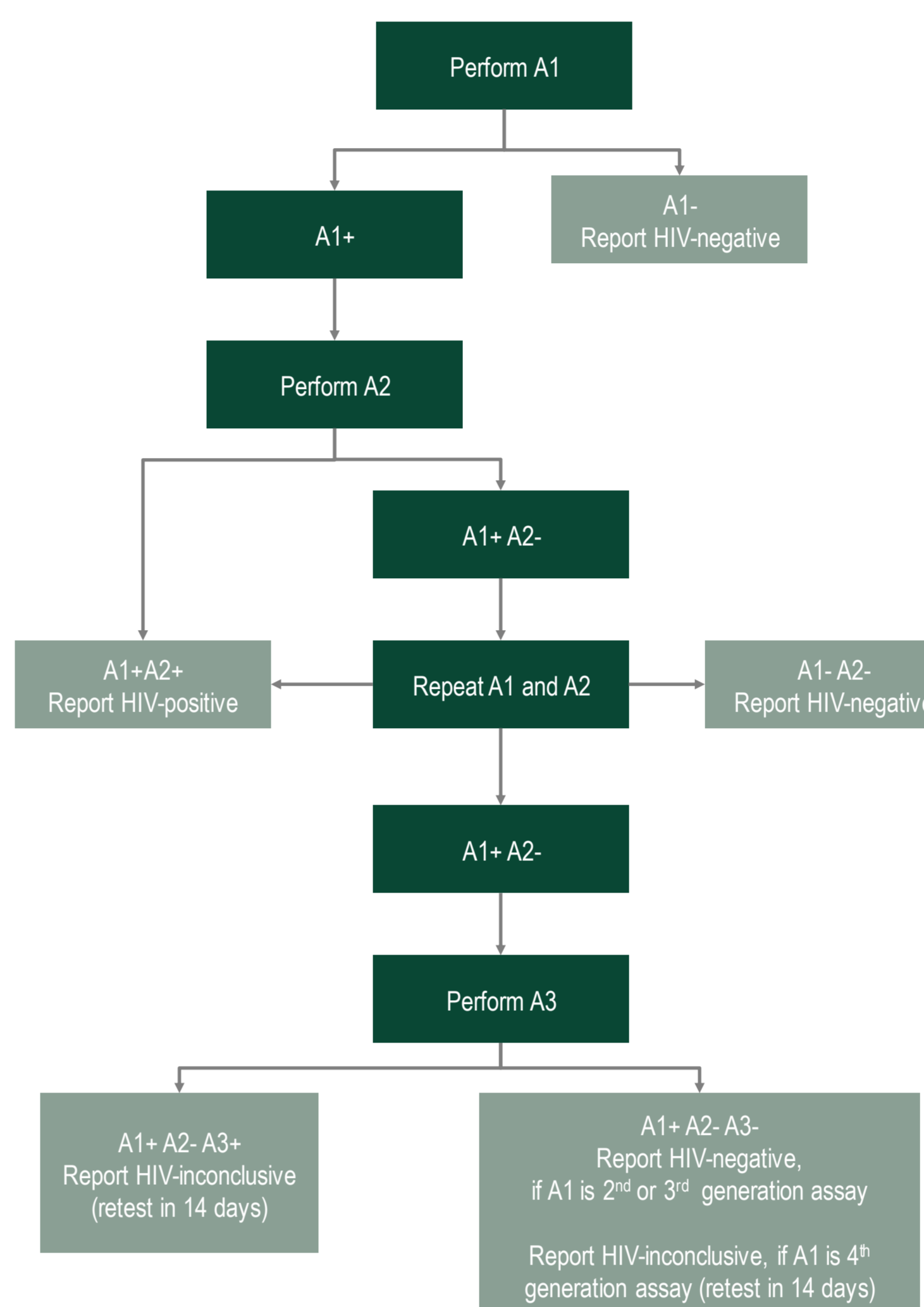
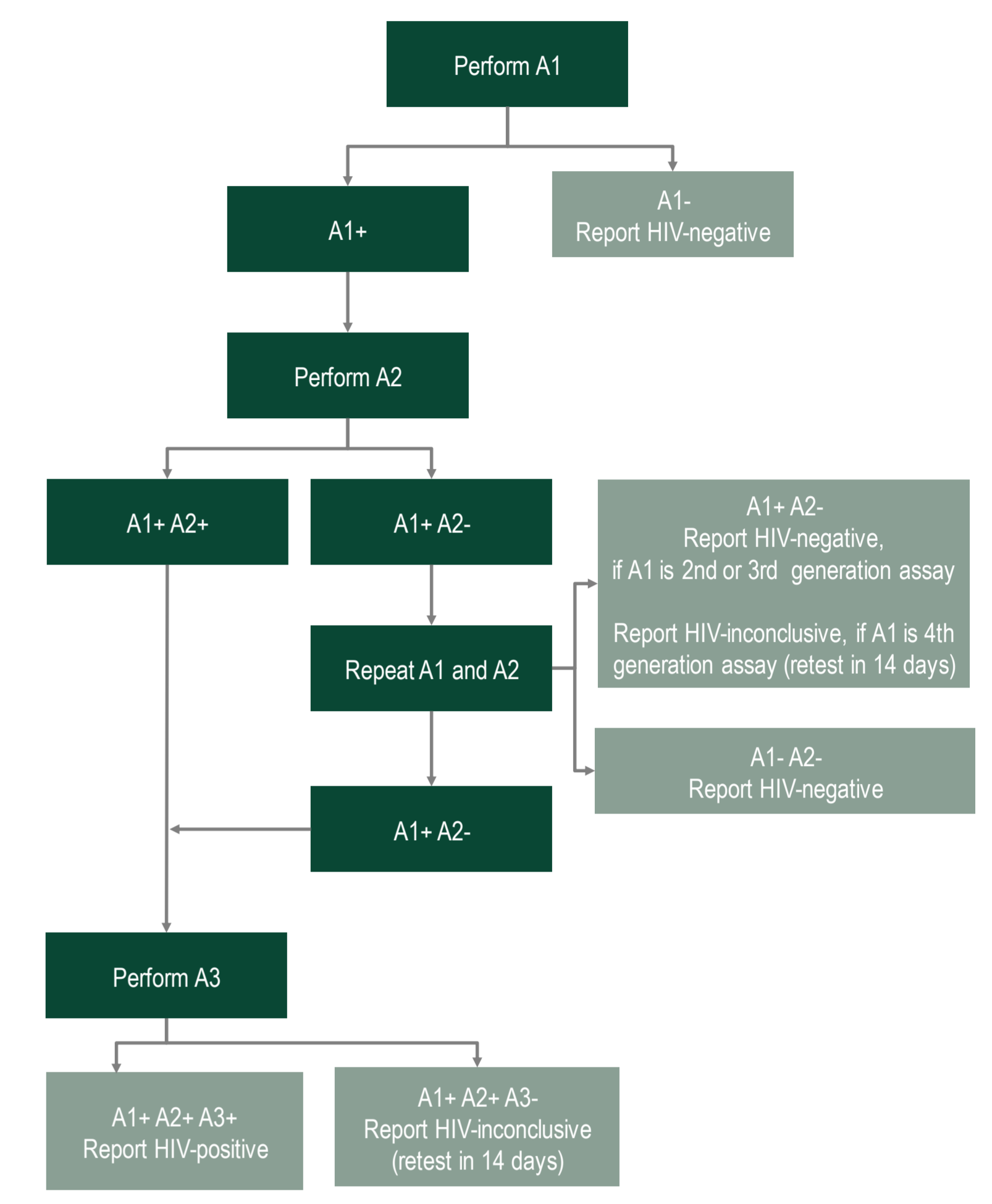


Fig. 2. Low prevalence (<5%) WHO recommended HIV testing strategy



- 13 policies reviewed used a tiebreaker testing strategy to rule in HIV-infection, 10/13 were in the WHO African Region.
- The majority of policies used a serial testing strategy however 6 countries recommended a parallel testing strategy—and one country policy included both a serial and parallel testing strategy. Half of all countries using a parallel testing strategy were in the WHO African Region.
- A number of countries also did not provide sufficient information to determine the type of testing strategy used.

Fig. 4. Alignment of reviewed national policies with WHO recommendations

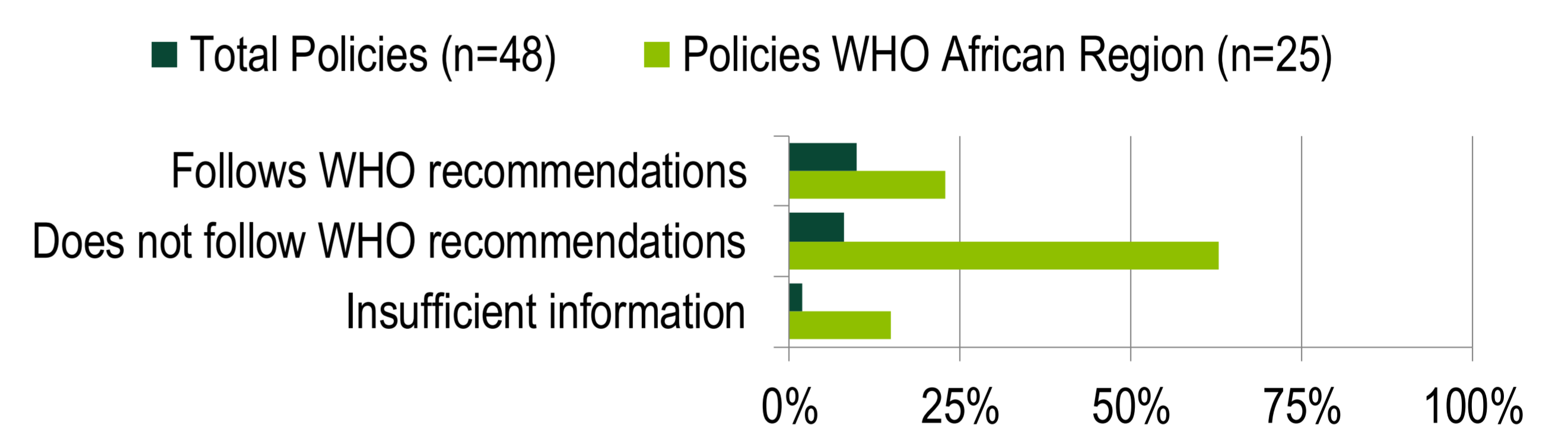
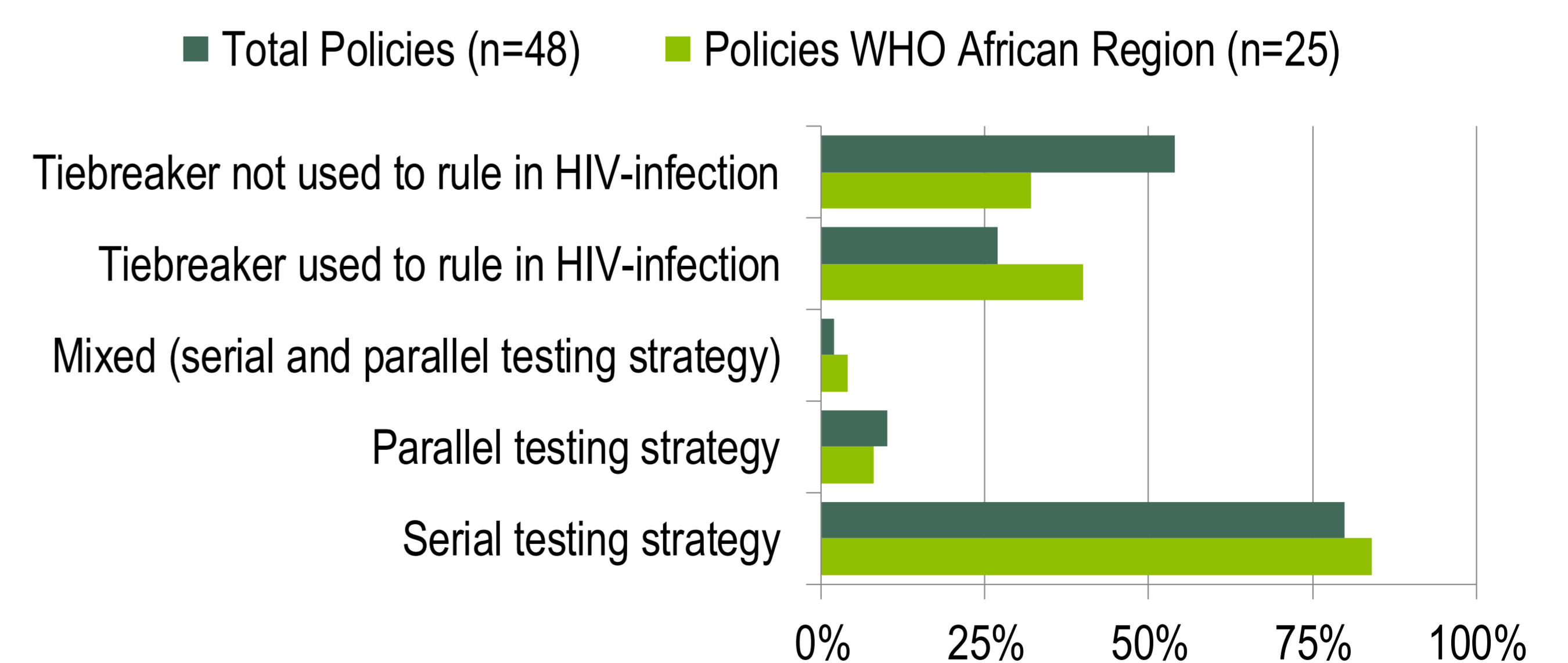


Fig. 5. Proportion of reviewed national policies using parallel or serial testing strategies and/or tiebreaker strategy to rule-in HIV-infection



## CONCLUSION

- Countries should review and consider revising national testing strategies to align with WHO recommendations, particularly if a tiebreaker is being used to rule in HIV-infection.
- It is also critical for countries to validate national testing algorithms when selecting products to ensure the most accurate and reliable HIV diagnosis.
- WHO also recommends countries retest all people who diagnosed HIV-positive before they start care or ART to verify diagnosis and rule out possible errors to minimize risk of misdiagnosis.