

HIV Risk Screening: A Systematic and Efficient Approach for Improving Identification of HIV-Positive Children in Ethiopia

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Background

- In Ethiopia, universal testing of children under five and targeted testing of older children was recommended in national guidelines to support identification of children. However, as universal testing led to test kit shortages, and health care workers (HCWs) had limited guidance on targeted testing, sick children presenting with opportunistic infections were prioritized.
- To minimize missed opportunities for identifying at-risk children, Ministry of Health adopted a HIV risk screening tool (HRST), informed by known risk factors and existing guidance, to systematically screen all children and offer HIV testing based on symptoms, family status and vulnerability.
- Since September 2020, Ministry and CHAI have provided training and mentorship to support implementation and monitoring of the screening tool.

Results

- In 2021, 70% (127,192/180,832) of eligible children were screened (*Figure 1*). Among those screened, 12% (15,334/127,192) screened positive, 85% (13,031/15,334) were tested and 0.42% (55/13,031) were identified HIV-positive (*Figure 2*).
- An additional 91 (2.19%) children were identified among 4,150 who were tested without being screened, likely due to presentation with opportunistic infections or for index testing (*Figure 3*).
- Overall, from 2020 to 2021, identifications increased by 54% from 95 to 146, with 38% identified through screening, and there was a statistically significant increase in yields from 0.72% to 0.85% (p-value: 0.049) (*Figure 3*).
- The number needed to test (NNT) to identify one child declined by 15% from 139 to 118.

Conclusions

- Increases in overall identifications and yields suggest that screening is an efficient way to identify HIV-positive children who may otherwise not be tested, and should be considered if universal testing is not feasible.
- To maximize impact, screening coverage should be increased, and outcomes routinely monitored.
- Further research should also review cases of children prioritized for testing without screening, and identified, to refine screening criteria.

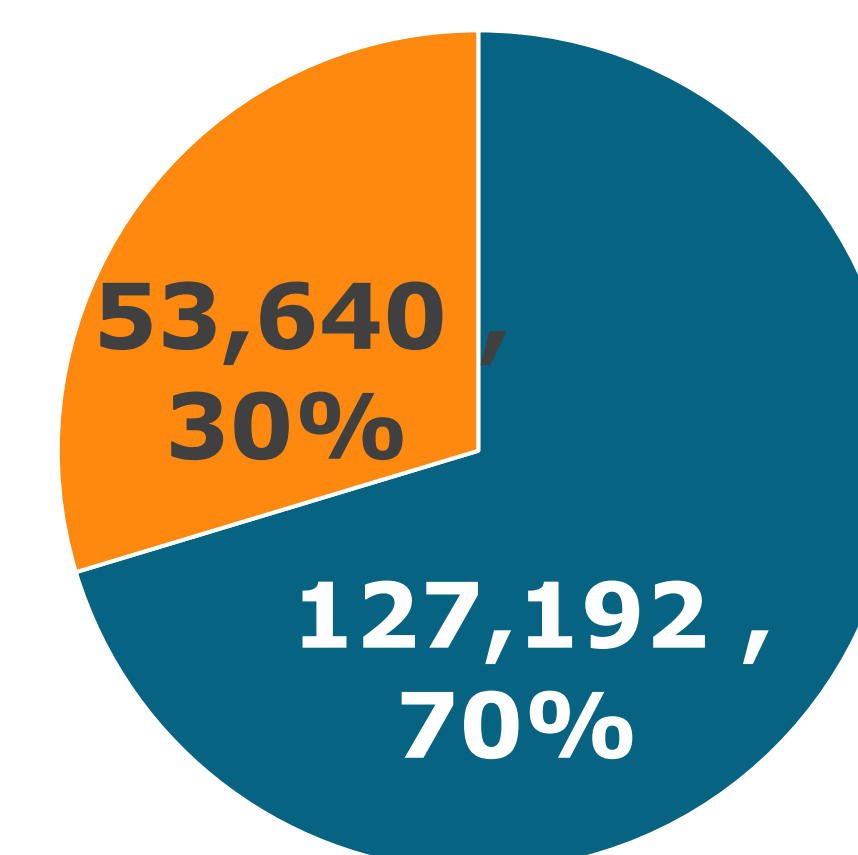
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Methods

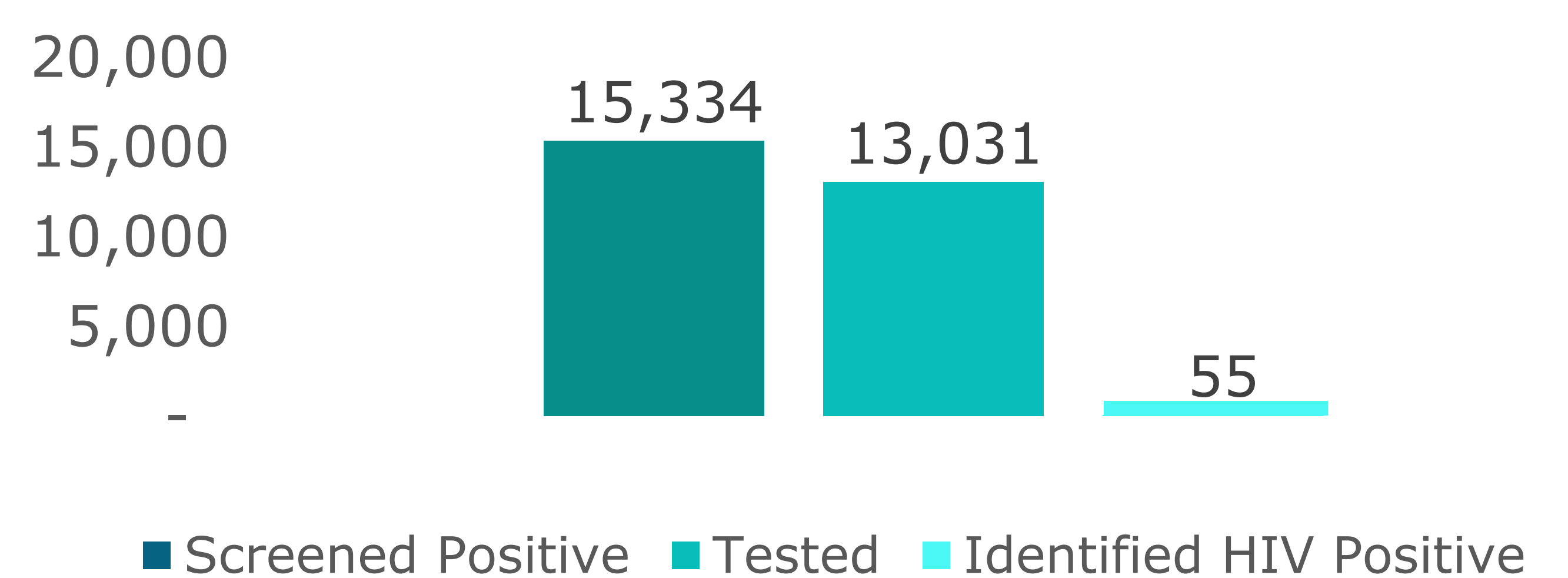
- The HRST was administered by trained HCWs to children <15 years in outpatient departments (OPD). Those who screened positive, defined as providing an affirmative response to one or more screening questions, were offered HIV testing.
- Data were collected on screening and testing, pre-(2020) and post-(2021) introduction of screening at 24 facilities.
- We assessed testing uptake among those screened and the number of children identified HIV-positive, and compared testing yields using a t-test.

Figure 1. HIV Risk Screening Coverage in 2021, 24 facilities



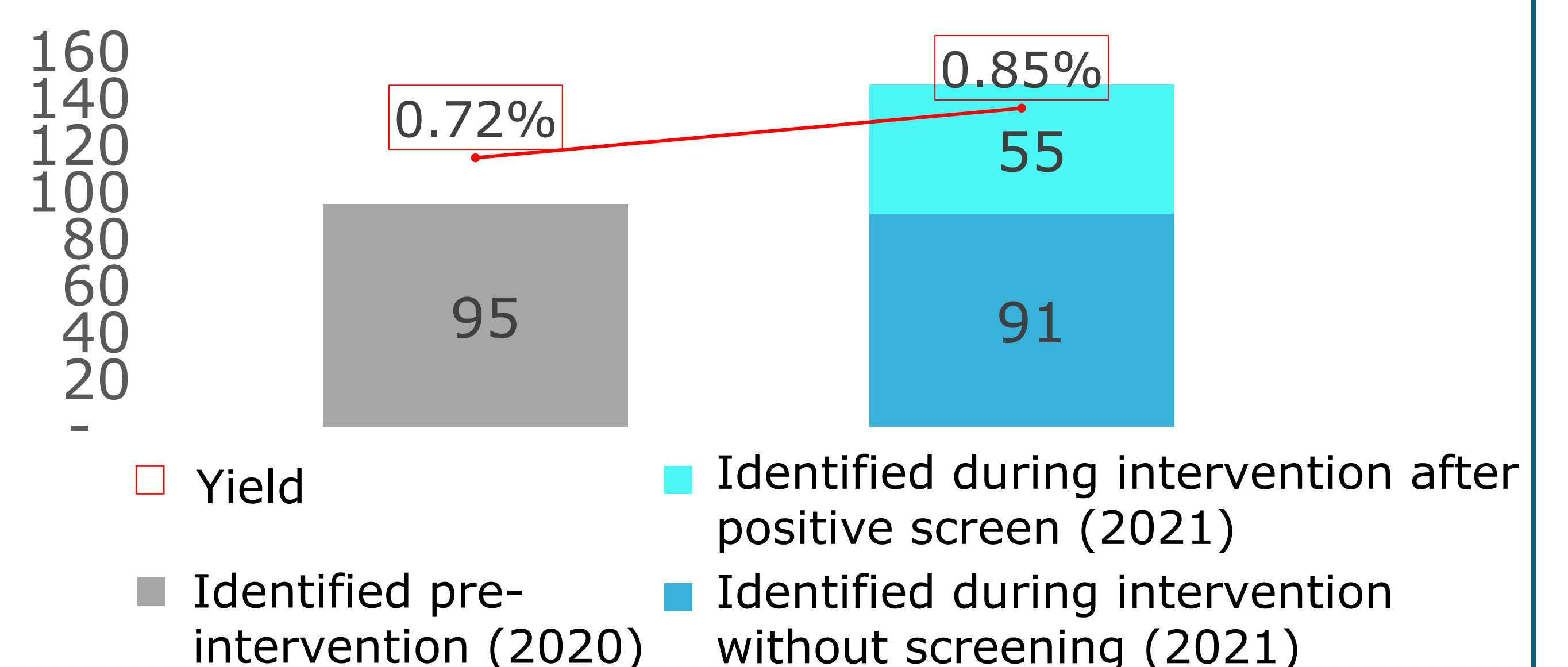
■ Children Screened ■ Children not screened

Figure 2. HIV Testing Cascade among those Screened Positive, 24 facilities



■ Screened Positive ■ Tested ■ Identified HIV Positive

Figure 3. Identification and Yield in 2020 vs 2021, 24 facilities



■ Yield ■ Identified during intervention after positive screen (2021)
■ Identified pre-intervention (2020) ■ Identified during intervention without screening (2021)

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