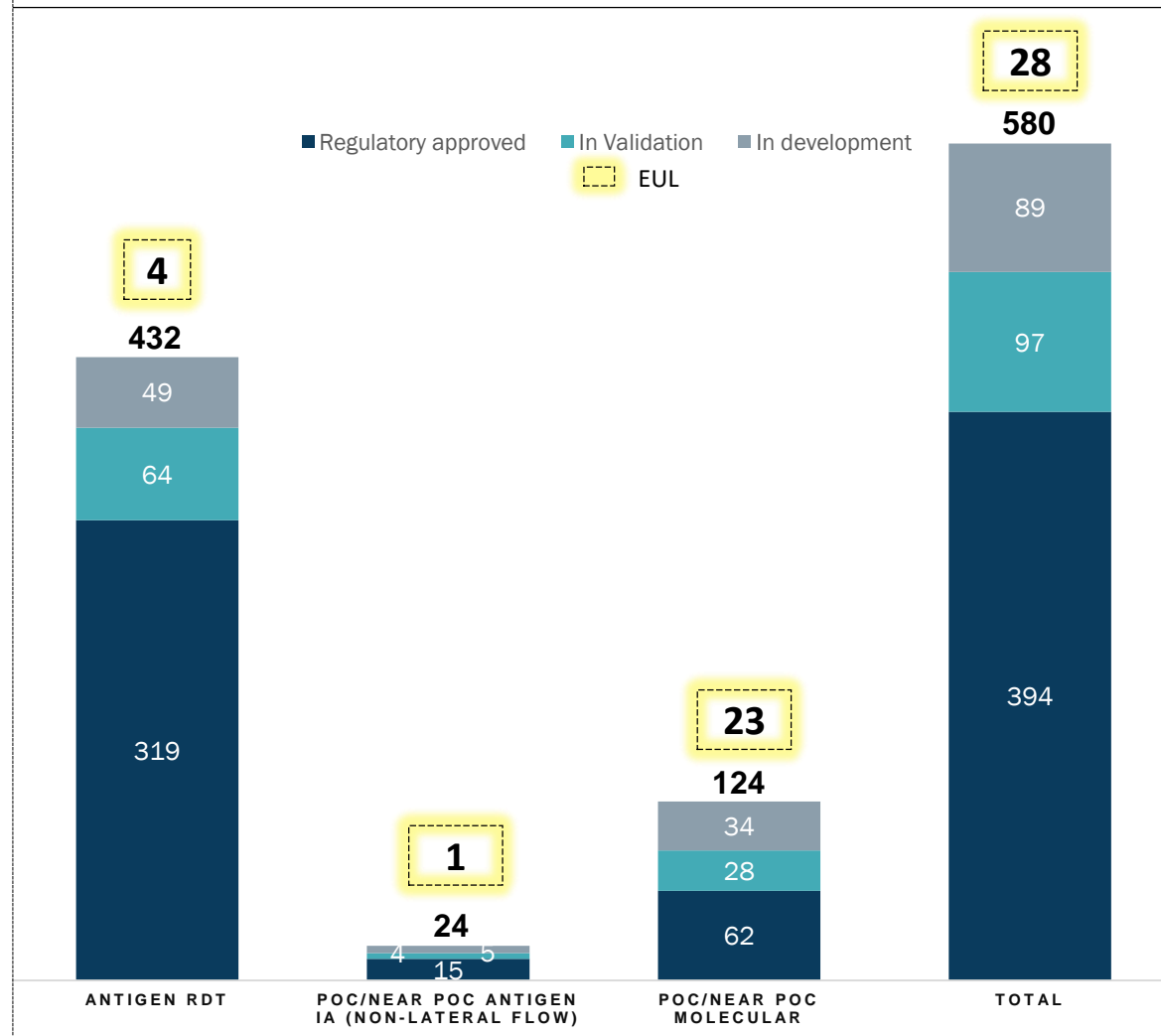


# The pipeline of diagnostic tools remains robust with progress still needed on affordability and EUL

## COVID-19 Antigen and Molecular Diagnostic Tools (Number of tools)



## Tools in market



### Ag RDTs

Multiple suppliers  
EUL=4  
~US\$3 per test, with goal of \$1 per test



### Near-patient molecular/PCR

Only one supplier with EUL; pricing still high (US\$15–20+)



### Lab-based molecular/PCR

Multiple suppliers  
<US\$15 per test



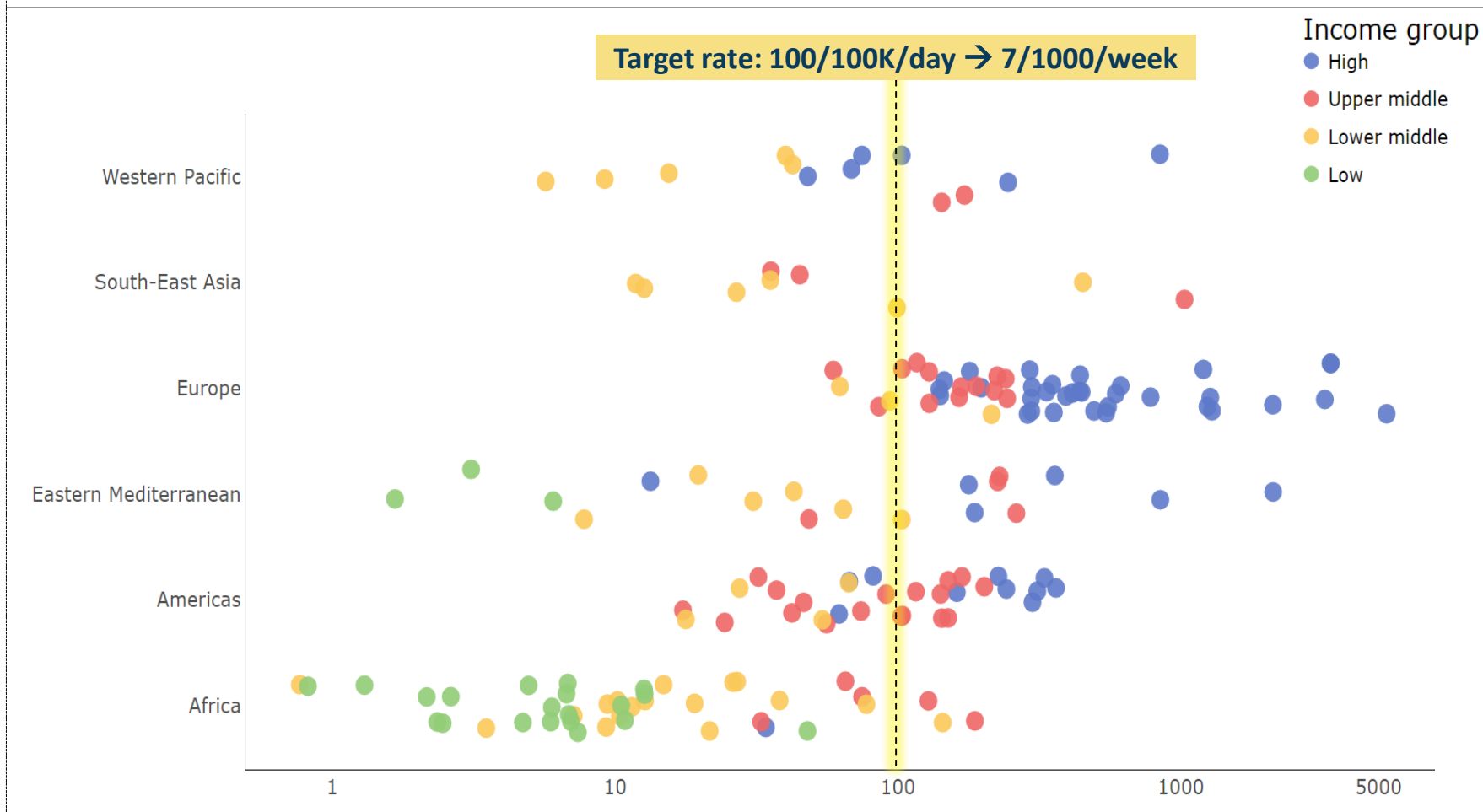
### Near-POC automated PCR

Single supplier (Cepheid)  
US\$14.90 per test

# Despite the availability of tools, testing remains inadequate in LMICs

## Average daily COVID-19 testing rates (Jan-Jul 21)

Number of tests per 100K population

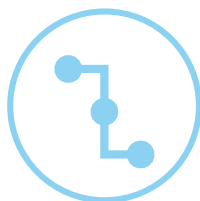


# There are multiple drivers contributing to the inequity in testing rates



## R&D

- Challenges in **manufacturing & supply** with limited local manufacturing



## Market shaping

- Limited **regulatory review** and approval



## Procurement

- Challenges in **supply chain**
- High **pricing** of tools & **shipping costs**



## In-country delivery

- Gaps in **in-country governance** and financing structures
- Lack of or **insufficient national testing strategy** followed by public health actions
- Largely **centralized testing**
- **Competing priorities** with other tools & disease areas
- Limited trained **human capital**
- Challenges in **data management**

**Lack of funding**

# ACT-A Dx partners are coordinating to address these barriers and ensure adequate testing to limit transmission, support test & treat strategies, and link to care

## ACT-A Dx pillar refreshed priorities for 2021-22

**01** Ensure a **reliable supply of accurate, affordable diagnostic tools** through expanded local manufacturing and support for market entry.

Ensure equitable access to tests by supporting the procurement and use of **1 bn tests in LMICs in 2021-22**

**02** Scale **procurement of diagnostic tools** based on policy and the evolving evidence of their optimal use.

Ensure increased testing is part of a comprehensive testing **strategy linked to public health action**

**03** **Expand capacity** for countries to deploy quality-assured diagnostic tools throughout the health system and **increase community-based testing with clear link to public health interventions.**

**Strengthen linkages** between testing, surveillance, treatment, and vaccination strategies

**04** Support the expansion of global disease surveillance, including strengthening the integration of epidemiological and genomic sequencing data.

# Appendix

# Upstream success with tool development needs to be translated into higher testing rates and linkages to care in 2021-2022

Category	What we've achieved	Plan for 2021-22
1 Research & development	<p>Executed <b>4 investments to bring QA, lower-cost antigen RDTs</b> with regionalized manufacturing in 2021</p> <p><b>RFP for low-cost, QA self-tests:</b> 6 manufacturers selected. Self-test needs assessment completed, values &amp; preferences work underway</p> <p><b>Refreshed R&amp;D product pipeline;</b> RFP on innovative molecular solutions recently closed with 47 applicants</p> <p><b>RFP on digital reader apps:</b> first award issued with others in review; Conducting regional workshops on digital tools</p>	<ol style="list-style-type: none"> <li>1. Invest in <b>R&amp;D and expanded local manufacturing</b> capacity to optimize existing products and bring additional POC molecular tests to market</li> <li>2. Ensure diagnostic tools remain effective by <b>supporting the external evaluation of products against variants</b></li> </ol>
2 Market shaping	<p>Maintained a robust pipeline of diagnostic tools with <b>394 approved products</b></p> <p><b>Agreements</b> signed to enable expanded production of Ag RDTs in Africa. Partnership announced to enable commercialization and distribution of high-quality Ag RDTs in LMICs.</p>	<ol style="list-style-type: none"> <li>3. Support <b>EUL of 4 additional tools</b> and deploy market shaping interventions to support expanded access</li> </ol>
3 Procurement	<p>Procured <b>over 39M molecular tests and 62.4M Ag RDTs;</b> supported prices reductions down to 2.5-3 for Ag RDTs, \$6-10 for manual PCR, \$10-20 for automated PCR</p>	<ol style="list-style-type: none"> <li>4. Support the <b>procurement and optimal use</b> of 988 M diagnostic tools</li> </ol>
4 In country delivery	<p><b>Operational research studies planning in 20+ countries</b> and launch of Ag RDT modelling consortium</p> <p><b>Launched Genomic Surveillance Working Group</b> to coordinate global efforts; <b>conducted baseline mapping</b> of global sequencing capacity</p> <p><b>Trained 42,200+ health care workers</b> in nearly 200 countries and <b>deployed catalytic tests to 20+ countries</b></p>	<ol style="list-style-type: none"> <li>5. Aid <b>evidence generation</b> required to support the expansion and decentralization of testing use cases, policies and guidance</li> <li>6. Ensure all countries have an <b>effective, QA program for testing</b></li> <li>7. Invest in <b>workforce development</b> to expand community-based testing</li> <li>8. Provide <b>technical assistance and operational support to expand decentralized testing</b></li> <li>9. Enhance <b>testing through advocacy, communication, and community engagement efforts</b> underpinned by local context</li> <li>10. <b>Support efforts to expand genomic sequencing capacity and build</b> in-country policies, laboratory and digital infrastructure</li> </ol>