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REASSURED diagnostics to inform disease control strategies, strengthen health systems and improve patient outcomes

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Abstract

Lack of access to quality diagnostics remains a major contributor to health burden in resource-limited settings. It has been more than 10 years since ASSURED (affordable, sensitive, specific, user-friendly, rapid, equipment-free, delivered) was coined to describe the ideal test to meet the needs of the developing world. Since its initial publication, technological innovations have led to the development of diagnostics that address the ASSURED criteria, but challenges remain. From this perspective, we assess factors contributing to the success and failure of ASSURED diagnostics, lessons learnt in the implementation of ASSURED tests over the past decade, and highlight additional conditions that should be considered in addressing point-of-care needs. With rapid advances in digital technology and mobile health (m-health), future diagnostics should incorporate these elements to give us REASSURED diagnostic systems that can inform disease control strategies in real-time, strengthen the efficiency of health care systems and improve patient outcomes.