

# Novel conceptual framework and toolset for country-wide assessments of opportunities and challenges for public health interventions

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## Introduction

Imbalances in wealth, education, infrastructure, sociopolitical leadership, healthcare and demographics create opportunities and challenges when implementing public health interventions. Understanding these, while embracing 'smart power', one can objectively assess a country's receptivity for support. Therefore, we developed a novel conceptual framework and toolset that objectively measured opportunities and challenges to inform decision-making, specifically about future implementation of the Electronic Integrated Disease Surveillance System (EIDSS)—a computer-based system for national reporting and monitoring of reportable human and veterinary infectious diseases—in East Africa and the Middle East.

## Methods

After conceptualizing and designing the toolset architecture, we gathered objective data to calculate indicators using a systematic approach from published reports; articles from peer-reviewed journals; and websites of international organizations and national Ministries in each country. We also interviewed stakeholders. Indicators were weighted to reflect the level of impact on elements and domains, and standardized baselines were established to uniformly measure outcomes. Outcomes for each element and domain were then calculated based on the weighted, indicator data.

## Results

One hundred twenty-four indicators were identified that measured 16 elements that defined 7 domains of country-specific opportunities and challenges: political will, stakeholder involvement, culture, public health functionality, healthcare, laboratory and communication infrastructure. Thirty (24%) of the 124 indicators were chosen from the reporting requirements of the 2005 International Health Regulations. In the pilot, we found various positive and negative implementation characteristics in Uganda, Kenya, Tanzania, Afghanistan, Iraq and Pakistan.

## Conclusions

We conceived a new and useful approach to objectively analyze opportunities and challenges for public health interventions within a country. With respect to introducing EIDSS, we piloted the toolset and described a balanced view of the opportunities and challenges. Application of this novel framework should be useful for other public health interventions, and validation and further testing of the toolset should be performed.

## Keywords

Public health evaluation; assessment; SWOT; smart power

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