

Assessment of Preparedness and Response Capabilities facing Future Pandemics and Emergencies in Public Health in Colombia

Dr. Jose Fernando Valderrama Vergara MD. PhD. MPH. MSc. Ep.

Assistant professor

Department of Global Public Health & Bioethics - Julius Center for Health Sciences and Primary Care | University Medical Center Utrecht

Introduction

This measurement of the preparedness and response capabilities to pandemics and public health emergencies in Colombia examines the capabilities developed by the country in stewardship and governance, information systems for public health surveillance, including laboratory surveillance, critical resources for care and response to pandemics and social determinants and effective access to health services. This is a study that was carried out between September 2021 and June 2022, that used a mixed methods approach in which the findings of a quantitative analysis were triangulated with information obtained through a review of relevant policy and planning documents, surveys of Territorial Health Entities, Departmental Laboratories and the Public Health District of Bogotá, as well as the interview of nearly 80 key informants at the national and subnational levels.

Aims

- Conduct an external assessment of the gaps in the preparation and effective response to pandemics and public health emergencies.
- Prioritize the investments required to close the gaps, sequenced and costed

This analysis is part of a regional effort that aims to review countries' public health preparedness capacities and identify critical investments to bolster those capacities, emphasizing investments that strengthen the resilience of health systems, including Primary Health Care. The evaluation does not intend to compare performance between countries.

The assessment focused on four main dimensions of pandemic preparedness and effective response: public health administration and governance; information systems, surveillance, laboratories, and One Health; availability of critical supplies to respond to emergencies, including vaccines and human resources for health; and social determinants and access to health services.

Methodology

- Analytical study with mixed methods. Information triangulation: Interviews with key informants and survey, Documentary review, Quantitative information
- 80 Interviews with key actors
 - 230 Documents
 - 56 Regulations
 - 14 Applications
 - 1 Survey to territorial health directorates
 - 1 Survey to Departmental and District Public Health Laboratories

The research was performed in three phases in which the preparedness capacities of the country in the face of pandemics and emergencies, the effective responsiveness in case of emergencies, using an adaptation of the JEE (Join External Evaluation) methodology proposed by the WHO and an exercise of prioritization and costing of proposed improvement interventions to identify gaps that require intervention.

Results

- › Colombia has many strengths in leadership for emergency preparedness and response, including risk communication, and has a wide governance framework in place. Long standing central surveillance systems, public health expertise, laboratory capacity, and immunization programs exist. However, there is still room to develop further the infrastructure for public health surveillance in Colombia, including information systems.
- › There are critical weaknesses in surveillance and laboratory capacities at the subnational level, and many departments, districts, and municipalities have limited basic public health capacities, including public health professionals.
- › Surveillance systems in some health system domains, such as those for zoonotic and vector-borne diseases and cross-border surveillance, are fragmented, which can cause critical delays in emergency response.
- › Territorial inequalities have significant variation in effective access to quality care despite universal health coverage, leading to the fragility of the health system and the population during emergencies.

Measurement scale of each domain and subdomain

- Level 1: Nascent
- Level 2: Emergent
- Level 3: Mature
- Level 4: Advanced

As can be seen, 50% of the domains evaluated are at the emerging level (2) and the rest at the mature level (3). One subdomain was considered at an advanced level (4) and none at a nascent level (1).

Recommendations

1. Improve public health surveillance capacity at the national and subnational levels. This will strengthen proactive surveillance capabilities, leading to earlier identification of risk events of public health concern and enabling more comprehensive surveillance activities.

2. Improve Colombia's capacity to produce critical supplies to prevent and manage public health emergencies. This will improve national response capacity in situations of global shortages of critical supplies, such as vaccines and reagents, during emergencies.
3. Strengthen governance mechanisms for decisive action in emergencies. This will increase flexibility in access to necessary resources, strengthen intersectoral action, and ensure that qualified health care workers are directed where and when needed.
4. Strengthen the governance of health data and surveillance systems, improving sectoral and intersectoral interoperability at national and subnational levels. This will ensure that all stakeholders involved in emergency decision-making have access to the required data in a timely manner.
5. Leverage primary health care strategies to improve surveillance and response to health emergencies at the community level and access to essential health services. This will promote the development and consolidation of a care model based on renewed primary health care and will strengthen public health at the local level.

A preliminary costing exercise concludes that to close the gaps identified in the study, the government will need to invest US\$242 million, including recurring costs of US\$212 million per year, less than 0.08 percent of GDP in 2021. This cost excludes investments in the domestic production of critical inputs such as vaccines and reagents, currently under consideration by the Colombian government.

