Strategic Framework

Enhanced Regional Health Security

PILLAR 1	PILLAR 2	PILLAR 3	PILLAR 4	CROSS-CUTTING
Leadership and human resource capacity	Technical preparedness	Access to Supplies and Surge Capacity	Vulnerable population groups and border health	Gender Digital health and Innovation

Enabling Factors

Institutional Setup	Cooperation and Partnerships	Capacity Support
CAREC institutional support	Stakeholder engagement	Training and knowledge sharing
	Political commitment and policy dialogue	
Working Group on Health	Multisector coordination	Research and knowledge products
	Geographic clusters	

Issues in Laboratory Capacity and Surveillance

PILLAR 2

Laboratory capacity

- Inadequate quality of laboratory services due to lack of Laboratory Quality Management Systems (LQMS)
- Weak biosafety management
- Rare certified engineers for biosafety cabinets maintenance
- Limited number of skilled laboratory technicians
- Inadequate capacities for genome sequencing to monitor virus mutations
- Lack of a unified network of laboratories for public health, lack of coordination between vertical program laboratories
- Challenges related to specimen referral and transportation

Surveillance

- Inadequate data analytics and use of digital tools for surveillance, including for lab-based surveillance
- Lack of integrated surveillance between human and animal health (One Health, also pillar 1)
- Limited interoperability between infectious disease surveillance and general health databases
- Lack of cross-border surveillance, due to lack of funding and lack of information exchange
- Lack of human resource capacity to deal with surveillance data in public health and at primary health care level
- A general shortage of human resources for public health
- Lack of funding to implement proper training for surveillance

Opportunities for regional collaboration (potential interventions)

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Laboratory capacity strengthening

National level interventions:

- Review laboratory systems attributing clear roles and duties to laboratories at different levels, avoid duplications
- Strengthen Laboratory Quality Management Systems (LQMS)
- Strengthen biosafety and biosafety cabinets maintenance through trained and certified engineers
- Accreditation, provision of equipment and supplies, and capacity building of laboratory personnel
- Consider investments in laboratories at different levels, prioritizing reference laboratories for genome sequencing (non-disease specific)

Regional interventions:

- Exchanging sampling strategies
- Cross-border specimen referral
- Regional training activities for laboratory personnel and clinicians
- Mobile labs in remote and hard-to-reach (border) areas

Strengthening Surveillance systems

National-level interventions:

- Improve data availability, timeliness and use by integrating health information systems for enhanced integrated surveillance within health sector and for One Health
- Improve 5G networks and leverage artificial intelligence to improve early warning and the availability of electronic data collection, reporting and analysis equipment.

Regional interventions:

- Work towards data and metadata standardization
- Regional health security dashboard (CARINFONET)

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Digital surveillance platform based on WHO data standards

Aggregate data

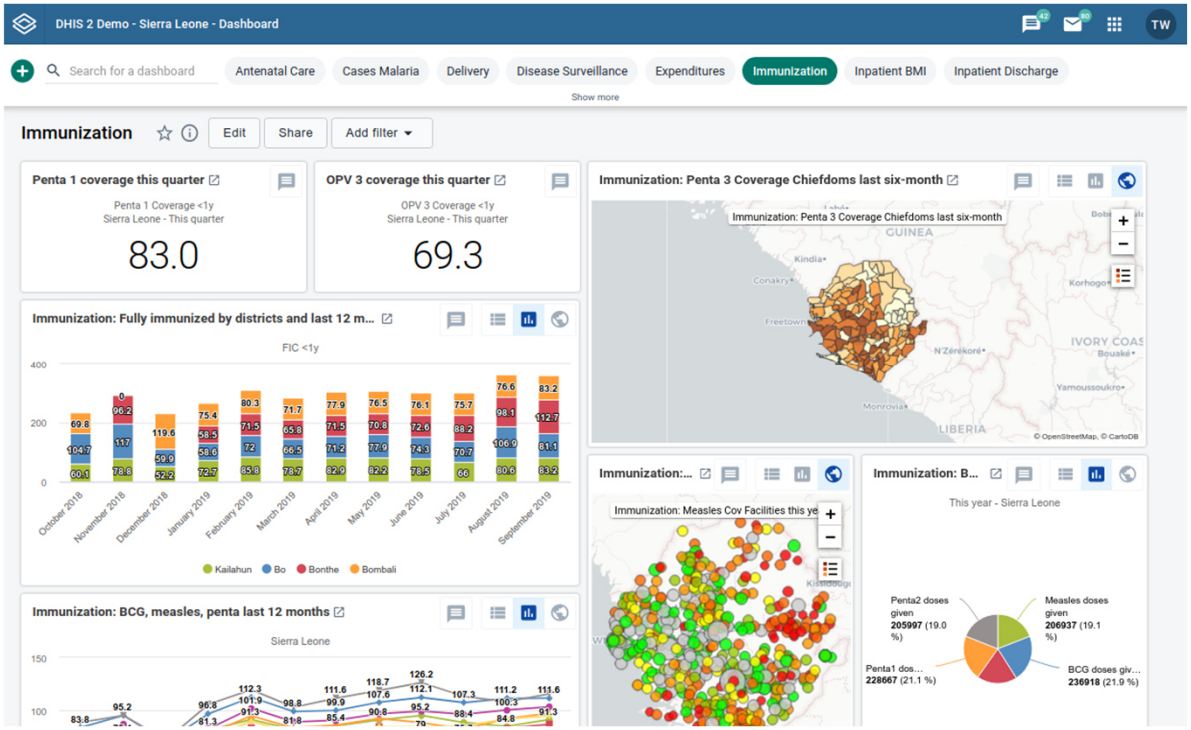
Immunization doses given
Number of TB cases
Refugees supported

Events

Facility assessments
Clinical visits
Educational events

Tracking

Maternal health
HIV/TB surveillance
Equipment, drugs



Challenges DHIS2 is helping to overcome:

1. Design and development of new surveillance tools (countries keep “reinventing the wheel”)
   - ➢ DHIS2 offers pre-build WHO standard metadata packages across disease programmes
2. Data collected but not analysed and used (across all administrative levels)
   - ➢ DHIS2 offers wide range of graphic tools embedded in configurable dashboards which can be access at all administrative levels
3. Labour intensive reporting, data aggregation and validation (across all administrative levels)
   - ➢ DHIS2 automatically aggregates, validates data based on set rules and can send notifications in case of discrepancies
4. Read-only access to the system for programme staff (staff cannot access or update data)
   - ➢ DHIS2 users can be provided with particular roles and divided into user groups

Examples of regional collaboration

BETTER LABS FOR BETTER HEALTH

World Health Organization
REGIONAL OFFICE FOR Europe

The BLBH initiative
A comprehensive intersectoral program focused on laboratory systems strengthening

From policy to people`s health security

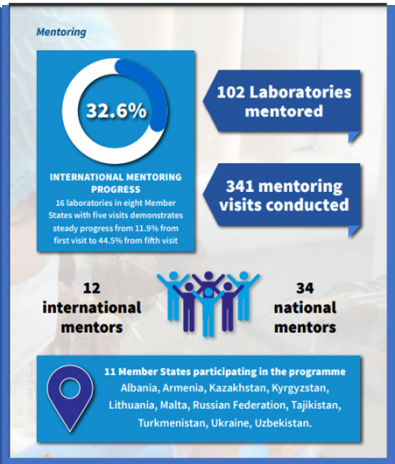
Goal: *To improve health through the provision of timely and accurate results that are trusted by the user, and by early detection of acute public health events.*

Area 1: Development of national lab policies and strategic plans

Area 2: Improve national training programs and QMS

Area 3: Establishing networks for emergency preparedness and response

Area 4: Advocacy, partnership and leadership



LAUNCH in 2019

European Region Laboratory Task Force for High Threat Pathogens

Laboratory System Reform

- Reviewing laboratory diagnostic algorithms
- Defining tests to be performed per level
- Sample referral situation analysis
- Analyzing laboratory activities and cost effectiveness
- Mapping actual situation and needs

Examples of regional collaboration

PILLAR 2

The Biosurveillance Network of the Silk Road (BNSR) is a non-governmental organization that is aimed at development of effectively-functioning disease surveillance network in Eastern Europe. BNSR contributes to strengthening the human and animal health security not only nationally but also within the region and therefore globally.

Since 2015, BNSR works as a platform, which provides the opportunity of a joint work for animal and human health professionals using the One Health Approach, through cross-border meetings, regular teleconferences between veterinarians and epidemiologists as well as conferences that are held annually.

https://bnsr.info/portfolio
http://www.stcu.int/news/index.php?id=482

Examples of regional collaboration

PILLAR 2

ADB-financed Kyrgyz Strengthening Regional Health Security Project

$50 million

Impact: Public health and regional health security in the Kyrgyz Republic improved
Outcome: Coverage of effective laboratory and border hospital services in Chui and Osh oblasts enhanced

Output 1: Capacity, quality, and networking of reference laboratories in Bishkek and Osh cities strengthened	• Upgrade and strengthen the capacity of the 4 reference laboratories in Bishkek and Osh cities • Provide mentoring support to 4 reference laboratories for ISO accreditation and to carry out key reference functions in laboratory network
Output 2: Laboratory services based on continuous quality improvement in Chui and Osh oblasts (including Bishkek and Osh cities) developed	• Develop laboratory network of 6 public health and 11 clinical diagnostic laboratories, equipping them based on modern quality and biosafety standards • Strengthen laboratory networks internally and with patient care and **cross-border services** using specimen transport and the existing laboratory information management system
Output 3: Patient care and biosafety capacity in hospitals in border areas and high travel zones in Chui and Osh oblasts improved	• Upgrade and strengthen the capacities of 6 hospitals' emergency services and improving their links to reference laboratories • Improve preparedness, prevention and control, screening, and case management of infectious diseases in border areas and high travel zones • Improve **cross-border and cross-sector information exchange** and **coordination of outbreak prevention** and control efforts (Pillar 4)

PILLAR 2

Proposed Regional Investment Framework

Activity	Proposed Modalities	Possible Countries/Clusters
▪ Enhanced Laboratory Capacity and Surveillance to Emerging Health Threats	▪ Project or project component	Azerbaijan, Georgia, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan
▪ Regional Health Security Dashboard	▪ TA (planned under ADB TA)	▪ Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan
▪ Pilot mobile labs	▪ TA	▪ *TBD*
▪ Strengthening Regional One Health	▪ Project	Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, Uzbekistan