ASSESSMENT

Country report: ECDC Public Health Emergency Preparedness Assessment for Latvia, 2025

Under Article 8 of the Regulation (EU) 2022/2371

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Abbreviations

AMR	Antimicrobial Resistance
ARI	Acute Respiratory Infection
BIOR	National Microbiology Reference Laboratory and the Institute for Food Safety, Animal Health, and Environment
CBRN	Chemical, Biological, Radiological and Nuclear
CDPC	Latvian Centre for Disease Prevention and Control
CMC	Crisis Management Centre
CRE	Carbapenem-resistant Enterobacterales
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EOC	Emergency Operating Centre
EPID	Unified Digital Epidemiological System
EU	European Union
EWRS	Early Warning and Response System
FVS	Food and Veterinary Service
HAI	Healthcare-Associated Infection
HERA	Health Emergency Preparedness and Response Authority (HERA)
HI	Health Inspectorate
HSC	Health Security Committee
ICM	Intersectoral Coordinating Mechanism
IHR	International Health Regulations
ILI	Influenza-Like Illness
IPC	Infection Prevention and Control
JRC	Joint Research Council
MCM	Medical Countermeasures
MDRO	Multidrug-resistant organism
MoH	Ministry of Health
NAP	National Action Plan
NAPHS	National Action Plan for Health Security
NCPP	National Civil Protection Plan
NDMP	National Disaster Medicine Plan
NFP	National Focal Point
NHS	National Health Service
NMRL	National Microbiology Reference Laboratory
PHSM	Public Health and Social Measures
PHEPA	Public Health Emergency Preparedness Assessment
PoE	Points of Entry
PPE	Personal Protective Equipment
PPS	ECDC Point Prevalence Survey
SARI	Severe Acute Respiratory Infection
SAIRIS	In-patient medical institution resource information system
SCBTH	Serious Cross-Border Threats to Health
SEMS	State Emergency Medical Service
SFRS	State Fire and Rescue Service
SPAR	State Party Self-Assessment Annual Report
SOMC	State Operative Medical Commission
SOP	Standard Operating Procedure
WGS	Whole genome sequencing
WHO	World Health Organization

Executive summary

Introduction

The aim of the Public Health Emergency Preparedness Assessment, as mandated in Article 8 of the Regulation (EU) 2022/2371 on serious cross border threat to health, is to improve prevention, preparedness and response planning in EU/EEA countries through the implementation of recommendations following individual country assessments. As specified in the Regulation, each EU/EEA country will undergo an assessment every three years, with the first cycle of these occurring between 2024 and 2026.

This report presents the findings and recommendations of the first assessment conducted in Latvia. This involved a desk review of relevant documents, followed by a five-day country visit that took place between 17 and 21 March 2025. As per the assessment methodology, all of the 16 capacities included in Article 7 of the Implementing Regulation (EU) 2023/1808 self-assessment template were assessed, with five of them considered in-depth: Laboratory (Capacity 3); Surveillance (Capacity 4); Health Emergency Management (Capacity 6); and Antimicrobial resistance (AMR) and Healthcare-Associated Infections (HAI) (Capacity 12) and Zoonotic diseases and threats of environmental origin, including those due to the climate (Capacity 10). The report also provides specific recommendations for the country to improve prevention, preparedness and response planning. Latvia is requested to provide an action plan addressing these recommendations within nine months of receiving this report.

Key findings

Latvia's national health system is centralised, with a strong role for the state. A WHO Joint External Evaluation was carried out in Latvia in 2017. The National Disaster Medicine Plan (the National Preparedness and Response Plan for the health care sector) focusses on the responsibilities and actions of the health sector institutions to ensure a comprehensive approach to health emergency management. The Plan, which is updated regularly, covers multiple hazards and considers both the strategic and operational levels. All health sector institutes and hospitals plan for the contingency of their services, with the exception of primary care providers. The National Risk Assessment also addresses health risks and is complemented by sectoral risk-assessment.

The Incident Management System at national level is composed of the State Operational Medical Commission, under the Ministry of Health, and the Crisis Management Council, under the Cabinet of Ministers. The different layers of stockpiles are coordinated, and the State Emergency Medical Service can rapidly obtain information on hospitals stocks through the IT system 'In-patient medical institution resource information system' (SAIRIS), which can facilitate reallocation. In addition to existing national medical stocks, there is a plan for the establishment of state-owned stocks of critical medicines, and there have been discussions on strengthening medicine supply chains with Estonia and Lithuania.

A tier-based laboratory system is in place, consisting of local private and public laboratories, hospital laboratories and national microbiology reference laboratories, representing both the human and animal sectors. Facilities for BSL-3 services are in place, but access to a BLS-4 facility has not been formalised. There are whole-genome sequencing (WGS) instruments and competence exists for the production and analysis of data in NMRL, but limited sequencing is conducted. Biosafety and biosecurity measures are in place, but further elaboration of capacities and routines are needed. Sample transportation functions cover routine diagnostic needs, but are insufficient for effective operation in outbreak/threat situations.

The VISUMS disease surveillance system is outdated and involves multiple manual processes, limiting efficient outbreak detection and control. The new system EPID, developed for COVID-19 surveillance, functions well but cannot receive surveillance data for other diseases. Sentinel ILI/ARI/SARI surveillance is in place although there is no sample collection for ILI/ARI cases or linkage to patient data for SARI cases. The Latvian Centre for Disease Prevention and Control does not follow a formalised assessment procedure for daily threat assessment. Hospital capacity information is continuously available in SAIRIS, and testing capacity and contact tracing capacity can be monitored on a daily basis, as well as during a public health emergency.

There is an acute need to build capacity for some key national-level activities in AMR and HAI surveillance and control. There is an epidemic of carbapenem-resistant Enterobacterales (CRE) in hospitals, with molecular evidence of cross-facility spread. The standard hygiene plan is under revision, and this represents an opportunity to strengthen the infection prevention and control infrastructure in hospitals. There has been progress with the National Action Plan (NAP) for AMR, with mid-term evaluation and the development of legislation for the intersectoral collaborating mechanism underway. There has also been progress with national antimicrobial stewardship activities since the establishment of the AMR Competence Centre in 2024.

With regard to One Health governance, there is good formal and informal horizontal and vertical cooperation between public health and food and veterinary services. There is collaboration between reference laboratories in the human and animal health sector, but no comprehensive One-Health approach to disease prevention and control, and links to the environmental sector are limited. There is a list of cross-sectoral notifiable diseases for early detection and outbreak investigations. Emerging zoonotic disease surveillance, including molecular surveillance, is partly project-based and partly dependent on available annual funding.

It was indicated that there are limited resources for routine public health and certain veterinary, One-Health surveillance tasks across Latvia, including human resources, technical infrastructure, and operations such as training and lessons-learned activities.

Main recommendations for each capacity assessed in depth

Health emergency management (Capacity 6)

- Develop a multi-sectoral methodology for health emergency risk profiling.
- Ensure inclusion of primary healthcare in the health emergency planning, in exercises and in the State Operational Medical Committee.
- Develop clear standard operating procedures (SOPs) to define roles, along with joint terminology for mixed scenarios involving the health and military sectors in order to strengthen civil-military cooperation for health emergencies.
- Set up a funding mechanism specifically for training and exercises for emergency management in the health sector, including but not limited to strategic decision-making.
- Evaluate the options to support production capacity of medical countermeasures (MCMs) – e.g. through capacity reservation contracts, use of procurement criteria which take into account security of supply, or use of existing neighbouring country cooperation.
- Assess the vulnerabilities of the whole supply chain for MCMs

Laboratory (Capacity 3)

- Ensure that a description of how to scale up laboratory capacity in emergency situations is clearly defined in the National Disaster Medicine Plan.
- Clarify the regulatory framework or national guidelines for biosafety and biosecurity.
- Ensure that an efficient sample transportation system is in place for outbreak situations, allowing referral of samples within country for diagnostic and confirmatory testing, and international shipment of high-containment samples.

Surveillance (Capacity 4)

- Ensure that the national surveillance system is resilient and fit-for-purpose for routine surveillance and emergency situations. The system should be automated, and it should allow comprehensive reporting by general practitioners, laboratory and hospitals across diseases, including genotyping and AMR data.
- Address aspects of human resources and competence for routine epidemiological monitoring, response to outbreaks, and timely and ongoing assessment of public health threats.
- Strengthen ILI and ARI surveillance by general practitioners and revise the system so that samples are collected from ILI and ARI cases and tested.

Antimicrobial resistance (AMR) and healthcare-associated infections (HAIs) (Capacity 12)

- Formalise the terms of reference for the One Health Intersectoral Coordinating Mechanism (ICM) for AMR, the establishment of the ICM secretariat, and the monitoring of NAP implementation.
- Address carbapenem-resistant organisms in healthcare settings with clear action, targets, and timelines. Strengthen laboratory and epidemiological capacities for the detection and investigation of outbreaks to control the spread of these highly-resistant and costly infections.
- Ensure that the Standard Hygienic Plan addresses standards for the built environment in hospitals that can be enforced.
- Strengthen the national-level Infection Prevention and Control (IPC) programme and develop a national strategic plan for HAI surveillance.

Zoonotic diseases and threats of environmental origin, including those due to the climate (Capacity 10)

- Strengthen cooperation between the public health and animal health sectors, including laboratories and environmental sector representativeness, in the One-Health governance for prevention, preparedness and response to zoonotic and environmental health threats between the animal health, public health, and environmental sectors at national and regional levels.
- Establish a cross-sectoral priority list of zoonotic diseases for One Health, for the purposes of molecular surveillance and further integrate molecular surveillance of priority zoonotic diseases and data-sharing mechanisms across sectors.

Conclusions

The assessment confirmed that in Latvia there is a good understanding of the state of health emergency preparedness and response, and a strong culture for preparedness planning. Collaboration between key stakeholders is functional, although not always formalised. Further commitment is needed to translate into action the recommendations from lessons-learned exercises during and after the COVID-19 pandemic, and the recommendations from the Joint External Evaluation (2017) that are still relevant.

The Latvian team provided relevant documents for the desk review and informative presentations for in-depth capacities to facilitate understanding. During the country mission, the sessions were well prepared and representatives from most of the institutions relevant for the assessment participated. However, there was a lack of local level representation in the assessment. The PHEPA was performed in a collaborative atmosphere and there were active discussions for each capacity, enabling the assessment team to form a clear view of the public health emergency preparedness and response capacity in Latvia. Several recommendations were developed following the discussions, with specific steps for sustaining the strengths and addressing the challenges in the country. This report provides specific recommendations for the country to improve prevention, preparedness and response planning. Latvia is requested to translate these recommendations into an action plan within nine months of receipt of this report.

Introduction

The aim of the Public Health Emergency Preparedness Assessments, as mandated in Article 8 of the Regulation (EU) 2022/2371 on serious cross-border threats to health, is to improve prevention, preparedness and response planning in EU/EEA countries through the implementation of recommendations following individual country assessments. As specified in the Regulation, each EU/EEA country will undergo an assessment every three years, with the first cycle of these occurring between 2024 and 2026.

This report presents the findings and recommendations of the first assessment conducted in Latvia. This process involved a desk review of relevant documents, followed by a five-day country visit.

Background and legal basis

During the COVID-19 pandemic it was recognised that the legal framework for combatting serious cross-border threats to health, provided for in Decision No 1082/2013/EU, needed to be broadened and enhanced to ensure a more effective response across the European Union (EU) to deal with health-related emergencies. Hence, the European Commission developed and published on 23 November 2022 the Regulation (EU) 2022/2371 on serious cross-border threats to health[1].

Within this Regulation it is recognised that prevention, preparedness and response planning are essential elements for combatting serious cross-border threats to health. In addition to creating a Union prevention, preparedness and response plan (Article 5 of the Regulation), the Regulation also outlined the importance of updating and seeking coherence with Member States' prevention, preparedness and response plans (Article 6 of the Regulation).

To monitor the implementation of the plans, the Member States shall report to the European Commission regarding their prevention, preparedness and response planning at the national level every three years. For this purpose, a self-assessment template was developed under Article 7 of the Regulation[2], complementary to the International Health Regulation (IHR) State Party Self-Assessment Annual Report (SPAR)[3].

In order to support the assessment of these plans, Article 8 of the Regulation indicates that ECDC has the responsibility – in coordination with relevant Union agencies and bodies – to conduct assessments of all 30 European Union and European Economic Area (EU/EEA) countries every three years. The procedures, standards and criteria for the assessments of the state of implementation of national prevention, preparedness and response plans and their relation with the Union prevention, preparedness and response plan are defined by the Commission Delegated Regulation (EU) 2024/1232, adopted in March 2024[4].

ECDC has developed a methodology for Public Health Emergency Preparedness Assessment to implement Article 8 of the Regulation (EU) 2022/2371. The assessment process addresses the 16 capacities included in the Article 7 self-assessment template and is designed to maintain consistency within the EU/EEA countries throughout the three-year cycle, while allowing for adaptation of plans if the national circumstances require.

Aim and objectives

The aim of the ECDC Public Health Emergency Preparedness Assessment process, drawn from Article 8 of the Regulation on serious cross-border threats to health, is to improve prevention, preparedness and response planning in EU/EEA countries through the implementation of recommendations following individual country assessments. Countries are asked to provide an action plan addressing the proposed recommendations of the assessment within nine months of receiving the ECDC report.

[1] European Commission (EC). Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health and repealing Decision No 1082/2013/EU. Brussels: EC; 2022. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R2371&from=EN

[2] European Commission (EC). Commission Implementing Regulation (EU) 2023/1808 of 21 September 2023 setting out the template for the provision of information on prevention, preparedness and response planning in relation to serious cross-border threats to health in accordance with Regulation (EU) 2022/2371 of the European Parliament and of the Council. Brussels: EC; 2023. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R1808

[3] World Health Organization (WHO). IHR (2005) States Parties self-assessment annual reporting tool, 2nd ed. Geneva: WHO; 2021. Available at: https://www.who.int/publications/i/item/9789240040120

[4] European Commission (EC). Supplementing Regulation (EU) 2022/2371 of the European Parliament and of the Council as regards assessments of the state of implementation of national prevention, preparedness and response plans and their relation with the Union prevention, preparedness and response plan. Brussels: EC; 2024. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202401232

The specific objectives of the assessment process are to:

- assess the countries' self-assessments of preparedness in the 16 capacities covered by the outputs from the most recent International Health Regulation State Party Self-Assessment Annual Report and the Article 7 template;
- collaborate with countries to identify good practice, challenges, bottlenecks, gaps or areas for improvement concerning the 16 capacities referred to in Article 7 (a list of the capacities assessed is available in Annex 1);
- encourage the inclusion of key elements within the prevention, preparedness and response planning structure, such as cross-sectorial and cross-border coordination, crisis management, response governance, communication, plan testing, evaluation and regular reviews, according to the lessons identified from the response to public health emergencies;
- use the opportunity of a standardised approach to the assessment process to contribute to the improvement of EU/EEA prevention, preparedness and response capacities by promoting a common understanding of key elements and a coordinated approach;
- provide support to countries in enhancing their national prevention, preparedness, and response capacities through recommendations based on the assessment, and provide targeted assistance upon request.

Assessment process

To conduct the assessment in Latvia, an assessment team composed of nine experts from ECDC, European Commission services DG-SANTE and DG-HERA, together with the country focal point and national experts from Croatia and Lithuania, worked to implement the assessment process, consisting of a desk review phase and a country visit that took place between 17–21 March 2025.

As per the established process, the ECDC-led team reviewed Latvia's responses to the Article 7 self-assessment questions of the 16 capacities included in the Article 7 (SCBTH) self-assessment template, the ECDC-led team assessed Latvia's responses to the Article 7 self-assessment questions and SPAR. Five capacities were assessed in depth: Health emergency management (Capacity 6); Laboratory (Capacity 3); Surveillance (Capacity 4); Antimicrobial resistance (AMR) and healthcare-associated infections (HAIs) (Capacity 12) and Zoonotic diseases and threats of environmental origin, including those due to the climate (Capacity 10, chosen by the country).

On the first day, the assessment team held a scenario-based discussion to investigate cross cutting themes and obtain the overview of the response system in the country. This included (i) surveillance and early warning, (ii) communication and coordination, (iii) monitoring and surge capacity, and (iv) risk assessment and response decision-making process. The scenario was based on an evolving avian influenza outbreak.

The discussions prior to and during the country visit were conducted in an open and transparent manner. The experts from Latvia were highly committed, both in the preparatory phase and during the country visit. The documentation and the clear insightful presentations provided ensured a common understanding of each capacity and facilitated discussions on the strengths and challenges encountered.

Further details regarding the practical aspects of the mission are available in Annex 2.

Main findings and overarching recommendations

Latvia is a small country with 1.9 million inhabitants spread across 43 municipalities and 10 major cities. The average life expectancy from birth (data from 2023) is 75.4 years (female 80.4 years; male 70.4 years). The average healthy life years at birth is 54.2 years (female 55.4 years; male 53 years). Healthcare is based on the residence principal and services are available at the state/national level, municipal level and at private in-patient and out-patient healthcare institutions. There is free choice of healthcare institutions and specialists. Patients can receive healthcare services that are paid from i) state budget, ii) by private insurance, or iii) out of pocket. State-funded healthcare services are provided by both state-owned and private medical institutions that have a signed a contract with the National Health Services (NHS). If a person is not resident in Latvia, then the services are paid out of pocket.

In Latvia the national health system is centralised, with a strong role for the state. The legal, policy and normative framework to implement the International Health Regulations for emergency preparedness is well established and the information exchange mechanisms with national and international stakeholders are well defined. The International Health Regulations (IHR 2005) have been implemented at national level through the Regulation on Procedures for the Implementation of Public Health Measures. The Regulation, which has assigned the State Emergency Medical Service (SEMS) as the National Focal Point (NFP) for the IHR, defines the reporting obligations of various authorities, and the response measures for international travel and at designated points of entry (PoE).

The national disaster management system is organised and regulated under the legislative framework of the Civil Protection and Disaster Management Law, National Security Law, and Medical Treatment Law. Organisation of the disaster medicine system is regulated under the Medical Treatment law and Cabinet Regulation No. 948 (13.12.2011) 'Rules for organizing a disaster medical system'. This system, regulated under the National Disaster Medicine Plan (the preparedness and response plan), has multi-sectoral representation to ensure a comprehensive approach to health emergency management. In the event of an emergency, the crisis management council, led by the prime minister and supported by the crisis management council secretariat, is responsible for the operational measures of state administrative institutions to ensure a rapid response and coordination and timely implementation of political decisions. The State Medical Commission (SOMC), which is sanctioned by the Cabinet of Ministers, plays a pivotal role in coordinating the health sector's response during an emergency. The Commission encompasses representatives from key health institutions including – in addition to NHS and SEMS as mentioned above – the Centre for Disease Prevention and Control (CDPC), the State Agency of Medicines, the National Blood Donor Centre, the Health Inspectorate, the National Forensic Medicine Expertise Centre, and university hospitals.

Challenges identified in Latvia from the scenario discussion included the need to formalise the early warning surveillance system for identifying and assessing threats from international signals. Information can come from EWRS, through IHR channels, and from media, but capacities and processes to assess these threats are limited.

A main area of weakness during the COVID-19 pandemic was the identification and monitoring of resources across the health and emergency response sectors, including tools for such monitoring. Improvements were made, moving from reporting in Microsoft Excel format to the development of an IT system fit for purpose (In-patient

medical institution resource information system (SAIRIS)). A cross-cutting theme discussed was the need to improve resilience and the way in which critical services function in a crisis. There is a need for standard operating procedures (SOPs) that can be followed during a crisis in conjunction with the training of personnel – this will also ensure confidence when making decisions during periods of uncertainty.

Workforce capacity and professional preparedness of workers was also a cross-cutting theme that emerged during the discussions. There is a need for additional human resources and to train existing staff who may not be able to assess whether an event is serious or not, leading to unintentional delays in response.

There is a strong collaborative approach in Latvia that mitigates challenges, but collaboration generally follows the 'small country' approach, where lines of communication across sectors are more informal (e.g. personal phone calls, WhatsApp). It is beneficial to have a more formalised mechanism or system linking institutional roles that would facilitate the rapid exchange of information and decision-making. In particular, formalising collaboration with academic institutions could help address needs in the areas of workforce development, rapid data analysis, surge staffing, and the development of the future public health workforce.

During the assessment, it was clear that emphasis is placed on conducting lessons-learned activities (simulation exercises, training, In-action and After-Action Reviews (AAR)) for continuous improvement. However, it was indicated that funding was not always readily available, and some sectors also lacked the competence to conduct such activities. Another cross-cutting finding was that resources were limited for routine public health tasks, including human resources, technical infrastructure, and operations (such as training and lessons-learned activities).

Additional participation at local and regional levels would have provided an opportunity to give the assessment team additional insight into capacities at lower administrative levels.

Findings and recommendations per capacity

A list of capacities included in the assessment is available in Annex 1.

Capacities assessed in-depth

Health emergency management (Capacity 6)

Management of health emergency response

The national disaster management system is organised and regulated under the legislative framework of the Medical Treatment Law, National Security Law, and the Civil Protection and Disaster Management Law. The latter determines the competence of the civil protection system and disaster management subjects to ensure the safety and protection of people, the environment and property in the event of a disaster or threat. The disaster medicine system is a component of the civil protection system and national security system, formed by the state and local government authorities.

The Ministry of Health (MoH) has the overall supervision of preparedness planning in the health sector. The State Operational Medical Commission (SOMC), chaired by the MoH, plays a pivotal role in coordinating the health sector's response during emergencies. The SOMC composition is sanctioned by the Cabinet of Ministers and encompasses representatives from all national institutions under the MoH, and major hospitals. In event of a public health emergency, the Crisis Management Council under the Prime Minister's Office ensures cross-sectoral collaboration at government level.

The National Disaster Medicine Plan provides a comprehensive overview of actions taken in the health sector in response to a public health emergency of biological, chemical, environmental, radio-nuclear, military or unknown origin. Together with the National Civil Protection Plan and the National Security Plan, it creates a comprehensive planning and response framework for all-hazard threat scenarios. With the engagement of other institutions responsible for preparedness of public health emergencies, the State Emergency Medical Service (SEMS) is responsible for developing and updating the National Disaster Medicine Plan. This is done on an annual basis and approved by the MoH. The Plan describes the management of public health emergency events, including actors, action and information exchange, resources needed, hospital bed availability, routines for international alert and surveillance systems, international collaboration/assistance, crisis communication, and training in use of the system.

Altogether there are 26 annexes of the National Disaster Medicine Plan which describe action at an operational level and in flow charts. There are separate annexes on aspects such as response to a mass casualty emergency and action in the event of a threat caused by infectious disease. In addition to threat specific plans, there are also government regulations defining the response to specific scenarios, such as handling threats of unknown origin and intentional release events.

Risk assessments are done at three levels: national, regional, and local. The National Civil Protection Plan includes a risk matrix based on the national risk assessment for all hazards which is the responsibility of the Ministry of Interior. This risk matrix has not been updated since before the pandemic but is routinely used to evaluate signals. Risk profiling, including hazard prevention, management and recovery planning, is done on a regular basis by different sectors, but a joint approach between sectors on how this is done in practice is lacking. In recent years, there has been greater emphasis on preparedness for military and chemical, biological, radiological and nuclear (CBRN) threats. Clear SOPs should be developed to define roles, as well as joint terminology for use by the health and military sectors in order to strengthen civil military cooperation for health emergencies.

National institutes are also required to plan for the continuity of their services in emergencies. For example, the CDPC has internal procedures and plans for public health emergency situations caused by different pathogens. Prevention, preparedness and response planning is coordinated at national, regional and local levels.

A new Crisis Management Centre (CMC), under the Cabinet of Ministers, is in the process of being set up. The development of a National Risk Registry and a cross-sectoral methodology for risk profiling and risk assessment could be included under this Centre.

There is an incidence management system in Latvia, linking the public health sector with sectors involved in health emergency preparedness and response planning, and this system is scalable, depending on the situation. For health emergencies, the SOMC, led by the State Secretary of the Ministry of Health, is responsible for high-level strategic decisions. The SOMC includes the health sector but can also include other sectors if needed, as described in the National Civil Protection Plan. However, most events are dealt with at the operational level between institutions, and the responsibility of each actor is clearly described in national legislation and the National Disaster Medicine Plan.

At present, primary healthcare providers are not required to plan for the continuity of their services, and they are not represented at the SOMC. Moreover, there is a lack of participation of primary care providers in exercises to test the preparedness plans. The SOMC was last convened, very rapidly, during the COVID-19 pandemic. In 2022, an exercise was conducted to test the decision-making process for evacuation of patients from various health facilities in an affected region.

There is a need for training and development of tools for strategic high-level decision making, especially in situations where little information is available. In addition, due to a lack of dedicated funding for training and exercises in the health sector, most of the existing training opportunities are table-top exercises.

With regard to an Emergency Operation Centre (EOC), this is a responsibility divided among several institutions; SEMS host the primary EOC function in Latvia. CDPC have EOC capacities for infectious diseases with experts on duty. The new CMC will also have 24/7 capacity for threat analysis and situation reports for decision-making.

The National Disaster Medicine Plan includes provision for cross-border mutual aid through cross-border agreements on ambulance services or inter-governmental agreements on mutual assistance and cooperation in the field of disaster prevention, preparedness and response. The latter would be used in the event of a major disaster and it would be coordinated by the Ministry of Interior. This mechanism was last tested in 2024 by means of a table-top exercise involving other Baltic countries, with the objective of identifying a joint approach to military threats. Mechanisms have been developed for emergency medical services in Latvia, Lithuania and Estonia to work together across borders and these have been tested during real-life events.

There is a mechanism for the implementation of public health and social measures (PHSMs) during a public health emergency and the multi-disciplinary and cross-sectoral nature is partly defined in the National Disaster Medicine Plan. The MoH, the Health Inspectorate and the CDPC are all mandated to take decision on certain PHSMs. CDPC is responsible for PHSM recommendations and guidelines for the public, and for medical staff and hospitals in the event of biological hazards. CDPC is also in charge of implementing the national immunisation programme. An assessment of the likely impact of the measures is a requirement for any legal act or government regulation. During the COVID-19 pandemic, PHSMs were discussed between sectors in an epidemiology sub-group under the

SOMC. Some data was also collected on the effectiveness and timeliness of certain measures in other countries, to inform national decision-making. Guidelines from ECDC and the World Health Organization (WHO) were also used for decision making on PHSM in Latvia. A more formal and multi-sectoral approach to the decision-making surrounding the introduction of PHSM would be useful, including several levels of the health system and civil society. A framework for evaluation of effectiveness and acceptance of various PHSM would also be useful.

Emergency logistic and supply chain management

The national stockpiling structure is multi-layered, encompassing individual, medical institution, national, and international levels.

At the individual level, households are advised to maintain an inventory of medicinal products essential for treating chronic diseases, coupled with a basic first aid kit. To support this, the Ministry of Defence has developed a booklet providing guidance on managing various emergency situations, including medication management.

Medical institutions are legally required to maintain stockpiles of MCMs sufficient to sustain operations for a period of one to three months, depending on the institution type. In-patient facilities are to maintain a three-month supply, while out-patient facilities are required to hold a one-month stock. The SEMS must also hold one-month reserves for its own activities focused on emergency medical assistance and pre-hospital care.

At the national level, state-owned reserves have been established to address major health crises such as military conflicts, natural disasters, mass arrivals of asylum seekers, or the provision of humanitarian aid to third countries. Each ministry is responsible for assessing the need for building reserves for the sectors under its responsibility, based on hazard potential and risk assessments, determining the type and volume of resources required during emergencies. The SEMS is tasked with managing the stockpile for the health sector. It comprises approximately 300 items, including medicines, personal protective equipment (PPE), and medical devices. All stockpiles are physical and can be deployed using the technical resources of SEMS. In cases requiring additional support, the State Fire and Rescue Service and the Ministry of Transportation may assist.

Finally, in scenarios where national stockpiles prove insufficient, requests for humanitarian aid can be made at the international level.

There is a coordination between the several layers of medical stockpiles. The SEMS can easily access updated information on hospital inventories through the SAIRIS system, which can facilitate stock reallocation when necessary. In addition to the stockpiles described above, there is a plan for the establishment of state-owned rotating stocks of critical medicines. Finally, to rationalise the coordination of the stockpiles held by the different ministries, the possibility to establish a unified stockpile agency is under consideration.

The State Agency of Medicines oversees the medicines supply chain, receiving daily stock data from wholesalers. In the event of a shortage, the agency can implement measures such as authorising the use of unauthorised medicines in Latvia, or accepting medicines packaged for other EU countries, provided that a translated leaflet is available.

Finally, Latvia, in conjunction with Estonia and Lithuania, has initiated discussions on strengthening the medicine supply chain. It would be useful to consider supporting the research and development of innovative MCMs targeting identified threats, possibly in cooperation with Estonia and Lithuania.

Recommendations

- Develop an approach to conduct multi-sectoral risk profiling for health emergencies.
- Perform regular exercises based on the risk profiling that include all relevant sectors and levels. Findings from the training should be incorporated into the annual update of public health emergency plans.
- Set up a funding mechanism specifically for training and exercises involving emergency management in the health sector, including but not limited to strategic decision-making A similar mechanism should also be set up for stockpile deployment, involving all the actors that would be part of a large-scale deployment.
- Ensure planning for continuity of care in primary healthcare during health emergencies and include primary healthcare providers in exercises and in the State Operational Medical Committee.
- Strengthen mechanisms for the evaluation of effectiveness, timeliness and acceptance of PHSMs by making use of the data and expertise of national institutions and universities:
  - set up a horizontal working group for PHSMs in Latvia between CDPC (currently responsible) and other relevant sectors, including research institutions;
  - develop a more formal and multi-sectoral approach to the decision-making for introduction of PHSM, including multiple levels of the health system and civil society.
- Pursue the establishment of state-owned rotating stockpiles of critical medicines.
- Further consolidate the national stockpiling structure to ensure:
  - a more coherent national approach to stockpiling that takes into account the needs of all the authorities involved and allow economies of scale and synergies;
  - a structured dialogue with the industry, which would allow for aspects such as a systematic mapping of national production capacities.

- Evaluate the options to support production capacity of MCMs – e.g. through capacity reservation contracts, the use of procurement criteria taking security of supply into account, or the framework of the existing cooperation with Estonia and Lithuania.
- Assess the vulnerabilities of the whole supply chain of MCMs, including the production of APIs and raw material.

Laboratory (Capacity 3)

Latvia has a tier-based laboratory system consisting of local private and public laboratories, hospital laboratories and a national microbiology reference laboratory (NMRL) located in Riga East University hospital. Roles, functions and operations of the laboratory system are defined in the Cabinet Regulations and are linked to the Latvian Epidemiological Safety Law. All laboratories conducting clinical or public health services within the system adhere to ISO standards and are accredited by an official body. At an operational level, the Latvian clinical laboratory system also is tightly linked to Institute of Food Safety, Animal Health and Environment (BIOR). BIOR provides reference laboratory support, diagnostic services for the non-human sector and can also be involved in emergency response. Exchange of data between the food and veterinary sector and human health sector is also regulated by the Cabinet Regulations. In the event of an emergency or pandemic, the National Disaster Medicine Plan defines to some extent the roles and responsibilities of the laboratory network and the NMRL. Upscaling of laboratory services and capacity during the COVID-19 pandemic was rapid and the system could deliver the volume of testing needed to meet the demands for clinical testing. Within two weeks after the sequence of the SARS-CoV-2 genome and a protocol of a real-time PCR assay were published, the NMRL could offer clinical testing services using a method that had been rapidly validated for clinical use, including positive controls. As assays became commercially available, testing capacity was extended to additional laboratories within the laboratory network and the total capacity reached a weekly test processing capacity of over 3% of the population. The scale-up of testing capacity was to some degree steered by the official roles of the laboratories, but more so by funding provided by the Latvian Ministry of Health. To increase preparedness and ability to rapidly scale up testing capacity, availability of a more detailed plan for the emergency deployment of the laboratory system would be beneficial. This plan could be a stand-alone document, but should be linked or preferably included in the National Disaster Medicine Plan. The reporting system for sending laboratory data to provide information for national surveillance and outbreak response activities is partly outdated and does not fulfil all the required functions. Part of the reporting is conducted using the VISUMS system which is not fully automated, cannot handle sequence information and is out-of-date and no longer receives updates. The EPID system for data reporting, primarily developed and used for reporting of COVID-19 does not include the full range of functionalities required for an effective reporting system. In parallel with these systems, electronic health records – including laboratory information – have been developed and will be deployed across the Latvian health system in spring 2025. Although promising, this system will not include functionality to automatically submit selected data to the national level for public health use. Further development and full implementation of a system for reporting, analysis and visualisation of clinical and laboratory data would be highly beneficial to strengthen public health functions in Latvia. Latvia has access to a BSL-3 facility that can be used for diagnostic purposes. The facility is in NMRL and has a safety cabinet for inactivation of high-containment samples. Working arrangements are in place for access to BSL-4 facilities in another EU country, but no formal agreement is in place for this service. Further clarification is needed to confirm whether national laboratory biosafety and biosecurity guidelines are being implemented in all laboratories at the national, intermediate, and local levels. While some aspects of these guidelines are probably being addressed in various laboratories, it was not possible to fully determine the standards on which they are based, particularly with regard to biosecurity. Referral and transport of specimens is organised for diagnostics and/or confirmation of most priority diseases from subnational to national level. The system is a service based in the NMRL and covers basic routine transportation of samples for confirmatory testing or diagnostics but does not have the capacity to be timely and cannot handle higher volumes of transport during outbreaks or emergency situations. For transport of samples to a BSL-4 facility in another EU country, procedures are available for the appropriate packing of samples, but no agreements or processes are in place for shipment services. Latvia has developed capacity for WGS of clinical samples, both at NMRL and the Institute of Food Safety, Animal Health and Environment (BIOR), where there is also competence for bioinformatic analysis and interpretation. Examples were provided from NMRL, where sequencing of clinical isolates was undertaken for surveillance and outbreak investigation purposes and included hepatitis B and C, HIV resistance detection and tuberculosis. However, the funding to use WGS for routine purposes at NMRL is limited and only around 1 500 isolates are processed annually. The BIOR Institute carries out regular sequencing of all food- and waterborne pathogens, and also of clinical isolates and various zoonotic agents, including HPAI, coronaviruses, etc. during outbreaks. WGS is performed regularly at Institute BIOR for routine and research purposes, for over 1 000 isolates annually. Defining objectives and use for sequencing information, as well as an approximation of the number of samples to be processed on an annual basis would probably increase the chances of receiving additional funding for both reference laboratories.

Recommendations

- Ensure that the process on how to scale up laboratory capacity in emergency situations is clearly defined in the National Disaster Medicine Plan.
- Set up a formal agreement with a laboratory in another EU country for services requiring BSL-4 facilities.
- Define which isolates need sequencing and apply for funding to cover these activities in the annual budget.
- Clarify the regulatory framework or national guidelines for biosafety and biosecurity.
- Ensure that an efficient sample transportation system is in place for outbreak situations and cases of emerging infections, facilitating the referral of samples within country for diagnostic and confirmatory testing, and international shipment of high-containment samples.

Surveillance (Capacity 4)

The Epidemiological Safety Law mandates the CDPC to perform epidemiological surveillance of infectious diseases and Cabinet Regulation No. 241 sets out the general functions and tasks of the CDPC. Procedures for registration of infectious diseases are provided in Cabinet Regulation No. 7. In addition to these documents, there are internal rules and documents that provide procedures for monitoring the circulation of infectious disease agents (e.g. influenza and acute upper respiratory tract infections); polioviruses and other enteroviruses, and cases of dangerous infectious diseases in the event of a global public health threat and providing recommendations for medical personnel and institutions on how to report cases of infectious diseases.

Latvia has implemented several systems for surveillance of infectious diseases: case-based reporting by clinicians and laboratories; event-based reporting by clinicians and institutions; and reporting of aggregated data for Acute Respiratory Infection (ARI), Influenza-Like Illness (ILI), Severe Acute Respiratory Infection (SARI) and epidemiologically significant bacteria in hospitals. Sequencing data are reported ad hoc. Surveillance information is reported in the VISUMS system for all diseases except HIV/AIDS, COVID-19, and ILI/ARI/SARI. This system was developed in 2008 and cannot be updated or further improved. Sequencing data therefore cannot be integrated into the VISUMS system. The CDPC receives information in paper format, emails (protected files), or via an e-notification form and manually enters this information into the VISUMS system. For some diseases (e.g. tuberculosis and hepatitis C), information is also collected in clinical registers and the CDPC combines the information from VISUMS, the registries and the cause of death database to achieve a complete overview. For COVID-19, Latvia created a specific surveillance system that was later transferred to the Unified Digital Epidemiological System (EPID). This system proved to be fit-for-purpose for COVID-19 but has not been further developed for the surveillance of other infectious diseases. For COVID-19, data can be automatically transferred from healthcare facilities and laboratories via e-Health to the EPID system. New respiratory viruses can be added quickly to EPID. EPID includes some functionality for data validation, however it cannot undertake data analysis and this is done by CDPC staff. The EPID system can be scaled up during a pandemic for respiratory infections. However, CDPC is not the administrator of the EPID system and cannot swiftly make adjustments or include new functionalities. EPID can also accommodate data regarding contacts and contact tracing. To facilitate contact tracing, EPID can automatically contact general practitioners, schools, etc. Further development of EPID could include linkage to the vaccination register, death register, etc.

For ILI and ARI, aggregated data are provided through an online system on a weekly basis by 39 general practitioners during the influenza season. Every year, different general practitioners are selected, in consideration of the additional workload for which there is no reimbursement. The general practitioners report the number of ILI/ARI cases in a database. They do not take samples from patients; therefore the causative pathogen is unknown. The 39 general practitioners cover 5% of the population. The CDPC reports that it is difficult to engage general practitioners in the system because there is no compensation for participation. SARI data are reported by 10 sentinel hospitals through the SAIRIS system (In-patient medical institution resource information system) over the whole year by age-group, not by sex. The hospitals report the number of SARI cases tested for influenza, RSV and COVID-19, including the number of positive tests. Testing coverage of SARI patients is probably close to 100%, but this is not formally assessed. Samples cannot be linked to patients.

The CDPC produces weekly reports on infectious diseases threats that are available on the website. These reports are discussed at a weekly meeting. Threats are assessed daily, though threat assessment does not follow a standardised assessment procedure.

The SAIRIS system continuously collects information on hospital bed capacity, hospital intensive care unit capacity, hospital emergency room capacity, hospital utilisation and other information. There is no system for the systematic collection of testing capacity information. During the COVID-19 pandemic, testing capacity information was collected manually by the COVID-19 crisis team. Information on contact tracing capacity administered by the CDPC is available and, in the event of a pandemic, this can be monitored.

Two wastewater monitoring systems have been implemented in Latvia. One system, implemented by CDPC, is for enteroviruses including polio, and this operates at eight sites with monthly sampling. This system has been functioning for more than 20 years. Regular wastewater monitoring for respiratory viruses was implemented during the COVID-19 pandemic by BIOR, with the involvement of the Joint Research Council (JRC), the Health Emergency Preparedness and Response Authority (HERA) and the EU WISH project. The system covers wastewater treatment

plants for centralised wastewater collection systems, with 14 sampling sites in 14 municipalities, and twice weekly sample collection. The population coverage follows the EU recommendation and samples are tested for SARS-CoV-2 variants. Testing for influenza has been piloted and can be implemented. Information from wastewater monitoring is included in the weekly respiratory infection report. Since testing for COVID-19 is limited, wastewater data are considered to provide good additional information, especially for early warning and strain information.

In Latvia the infrastructure for timely assessment of a pandemic threat is limited. During an outbreak, all cases are investigated and transmission chains assessed. The CDPC does not have the capacity to carry out formal studies to assess transmissibility, route of transmission, effective reproduction number, or immunologic correlates of protection. Severity can be assessed by looking at how many cases are in ICUs, with correlation to the number of deaths. No further detailed information is collected on severity of disease. Vaccine effectiveness is assessed for COVID-19 vaccine and influenza vaccine. The vaccination register for all vaccinations started in 2024, therefore it will also be possible to assess vaccine effectiveness for other vaccines in the future. The CDPC does not have mathematical modelling capacity. There are informal contacts between research institutes/universities and the CDPC. Sometimes CDPC runs projects with universities/research institutions. It was mentioned that there are legal restraints preventing CDPC staff participation in research projects if they are outsourced to research institutions.

Recommendations

- Urgently strengthen the national surveillance system to fulfil national responsibilities for surveillance and EU-level requirements for the reporting of epidemiological data and signals. The system should be flexible, resilient and responsive in emergency situations, electronic, automated, and should allow comprehensive reporting by general practitioners, laboratories and hospitals across diseases, including genotyping and AMR data. This can be done by further expanding the Unified Digital Epidemiological System (EPID) and ensuring that all functionalities required for a robust and flexible national surveillance system are provided by EPID. Further development of the EPID system or development of a different system requires a plan that is sufficiently resourced (also taking into consideration maintenance and updating in the future). Furthermore, the plan can also include provisions on the number and type of staff needed to perform all surveillance functions and cover surge capacity during public health emergencies. Externa support can be sought (e.g. from ECDC) to provide input for the plan.
- Address aspects of human resources and competence for routine epidemiological monitoring, response to outbreaks, and timely and ongoing assessment of a public health threat.
- Strengthen ILI and ARI surveillance by general practitioners and revise the system so that samples are collected from ILI and ARI cases and tested.
- Ensure that all epidemiological signals are properly evaluated on a daily basis using a predefined methodology for assessment.

Antimicrobial resistance and healthcare-associated infections (Capacity 12)

Latvia's One Health National Action Plan (NAP) for AMR 2023–2027 outlines tasks across broad action areas in human and animal health to improve the country's capacities to address AMR. Legislation to formally establish the secretariat of the One Health Intersectoral Coordinating Mechanism (ICM) is in progress, and terms of reference are being clarified with support of the BALTic One Health One Plan (BALTOHOP) project. Having reached the mid-point in the NAP's timeline, an internal mid-term evaluation is underway. This mid-term evaluation offers an opportunity to not only monitor the progress of the NAP's actions, but also to evaluate barriers to effective implementation of the NAP.

The NAP's implementation is funded through the budgets of the implementing institutions rather than a single NAP budget, and each institution is responsible for carrying out their assigned tasks. Identification of gaps in funding for NAP activities could help understand what will be feasible by 2027, and how tasks might need to be reprioritised. While the NAP does not have a dedicated budget, attempts to quantify overall spending on AMR actions are still important; evaluations of the potential cost-savings and the returns from these investments can support sustained funding for AMR capacities in the future.

Latvia has made great progress with national antimicrobial stewardship activities since the establishment of the AMR Competence Centre in 2024. The AMR Competence Centre is hosted by Pauls Stradiņš Clinical University Hospital and has already published empirical antibiotic therapy recommendations online, taking into account local epidemiological data, medication availability, and potential costs. The Centre has also developed methodologies for providing feedback to prescribers on their antibiotic prescribing practices and promotes the use of the WHO AWaRe classification of antibiotics. However, there is little systematic feedback on antimicrobial consumption data to hospitals and prescribers. There is no information on indication for antibiotic prescriptions at national level, and there are no requirements for antimicrobial stewardship in healthcare facilities. The need for legislation on stewardship requirements and funding for stewardship activities in hospitals is being discussed between the Ministry of Health and the AMR Competence Centre.

Reporting requirements in Cabinet Regulations No. 7 (quarterly laboratory reporting with susceptibility results for certain pathogens found in blood, CSF, and sterile sites; reporting of carbapenem-resistant Enterobacterales cases within 72 hours) and No. 104 (quarterly aggregated hospital reporting of epidemiologically significant microorganisms from any site) provide a legal basis for AMR surveillance and detection of emerging threats. Carbapenem-resistant Enterobacterales (CRE) is appropriately emphasised as an urgent issue with the 72-hour reporting requirement, however there are gaps in the human and technological resources necessary to effectively synthesise, validate, and act on the collected data in a timely manner. For example, the number of carbapenem-resistant *K. pneumoniae* cases reported to CDPC is lower than the number of corresponding isolates submitted to the NMRL for WGS. As WGS has found outbreaks of carbapenem-resistant *K. pneumoniae* in Latvia, case numbers need to be validated, and epidemiological data need to be rapidly synthesised to identify potential sources of infection. Case data are manually recorded and manipulated, and laboratory data from the NMRL is not easily linked to cases reports at CDPC, hindering timely analysis of the data to understand where additional infection control measures are needed. Even if there will be an updated data system with more automation, more epidemiologists with expertise in AMR and HAI surveillance and control are needed; half of a full-time equivalent person at CDPC is not enough to facilitate the control of CRE outbreaks across multiple healthcare facilities. While CDPC has the mandate to control outbreaks, it does not have enough staff that are trained to work effectively with hospitals where CRE is spreading in order to co-develop and monitor control measures.

At the hospital level, detection and control of CRE outbreaks is challenging, as there are limited human resources, funding, time, and infrastructure for effective Infection Prevention and Control (IPC). Screening for CRE is not consistent as recommended because screening tests are not reimbursed. Monitoring of IPC practices can vary across hospitals, and the national IPC programme is not able to visit hospitals to assist with IPC monitoring, assessments, or support. Apart from the ECDC Point Prevalence Survey (PPS), there has not been any national-level surveillance of healthcare-associated infections (HAIs), although hospitals do some HAI surveillance on their own. At the current time, CRE is not considered endemic in Latvian hospitals, but without significant strengthening of national-level actions to control CRE, more and more patients may develop severe infections that are difficult to treat.

Structures for national engagement among hospital IPC personnel have been maintained since the COVID-19 pandemic, with monthly meetings organised by the AMR Competence Centre. These meetings enable guidance and best practices to be shared. Some IPC specialists are also involved with the revision of the Standard Hygienic Plan, a set of IPC recommendations for medical institutions. Revision of these recommendations is an opportunity to strengthen physical infrastructure and design of healthcare facilities to facilitate effective IPC. Enforceable standards for the built environment to support adequate isolation of patients and other IPC measures in hospitals were noted to be lacking. Long-term care facilities in Latvia were mentioned to be small residential homes or palliative care facilities under the purview of the Ministry of Welfare. A PPS conducted over a decade ago found little antibiotic use and few infections in these homes, which deprioritises them for further surveillance or intervention at this time.

In conclusion, reducing the risk of the spread of AMR is part of the National Public Health Strategy 2021–2027, and progress has been made recently in addressing AMR. The emerging threat of CRE puts health systems and lives at risk, as these extremely resistant pathogens spread through hospitals. There is therefore a need for new structures and processes to address the growing threat of AMR and to prevent healthcare-associated infections.

Recommendations

- Formalise the One Health Intersectoral Coordinating Mechanism (ICM) for antimicrobial resistance (AMR), through planned legislation. This should include the establishment of a secretariat and of clear terms of reference. The ICM should be involved in regular monitoring and evaluation of the progress on implementation of the National Action Plan on AMR. Evaluation of risks and barriers to achieving full implementation of the NAP should be included in the ongoing mid-term evaluation of the 2023–2027 NAP, including an assessment of funding gaps.
- Effective digital tools for timely national AMR surveillance are needed to ensure a resilient and responsive system for AMR control in the context of increasing AMR threats. This includes establishment of reporting systems that are automated and integrate clinical and laboratory data, maximising data completeness and minimising manual processes in the context of ongoing human resource challenges. Digital tools that facilitate integration of data across sources, analyse data to identify public health threats and potential sources, and effectively visualise data in a timely manner can inform interventions that will prevent spread of MDROs and limit associated morbidity and mortality.
- Address carbapenem-resistant organisms in healthcare settings with clear actions, targets, and timelines. ECDC recently recommended in its Rapid risk assessment - Carbapenem-resistant Enterobacterales – third update that Member States 'develop a CRE management plan (as part of the National Action Plan on antimicrobial resistance, an action plan on multidrug-resistant organisms (MDROs), or as a stand-alone document) outlining actions and budget, with regular public reporting on progress. Clear targets should be established with defined timelines.' Ensure that adequate legal and financial resources are in place for necessary action to control carbapenem-resistant organisms, including screening for carbapenemase-producing organisms, as outlined in ECDC and Latvian guidelines.

- Ensure that the updated Standard Hygienic Plan will address standards for the built environment in hospitals that can be enforced. Healthcare facilities should be designed to facilitate hygiene and minimise the spread of contamination by the movement of patients, staff, equipment, supplies, and contaminated items. When developing standards for physical infrastructure to facilitate effective infection prevention and control (IPC) in healthcare facilities, the growing epidemic of MDROs in healthcare facilities should be considered. (By way of illustration, one example could be the organisation of activities and movements between 'dirty' and 'clean' zones).[5]
- Strengthen the national-level IPC programme and develop a national strategic plan for HAI surveillance. Refer to WHO assessment tools for infection prevention and control programmes at the national level, starting with the assessment tool for minimum requirements before progressing to the comprehensive assessment tool.[6] To facilitate first steps towards HAI surveillance at national level, refer to the WHO practical handbook for Surveillance of health care-associated infections at national and facility levels. A national strategic plan for HAI surveillance is a minimum requirement for national IPC programmes, as it facilitates systematic identification of healthcare quality and safety issues to address at a national level.

Zoonotic diseases and threats of environmental origin, including those due to the climate (Capacity 10)

Latvia has established a robust framework for managing zoonotic diseases and environmental health threats, underpinned by comprehensive legislative structures that clearly identify key stakeholders and coordination mechanisms between the sectors. At the national level these stakeholders include the Centre for Disease Prevention and Control (CDPC), Food and Veterinary Service (FVS), and Health Inspectorate (HI) supported by the relevant reference laboratories on human and animal health sector; National Microbiology Reference Laboratory and the Institute for Food Safety, Animal Health, and Environment (BIOR).

Key strengths and substantial achievements include effective formal and informal cooperation between human and animal health sectors, particularly between CDPC and FVS, supported by explicit cooperation agreement. This agreement details the sharing of routine and early warning information between sectors and stipulates that the functions laid down in legislation and regulations are carried out effectively and in a coordinated manner, to promote and develop effective surveillance of infectious diseases.

Clear algorithms are established for handling zoonotic infections. If zoonosis is suspected or determined in an animal or in the environment, and there is a risk that humans may also become infected, the necessary counter-epidemic measures are organised and implemented by CDPC, and in the event of animal illness they are organised by FVS, mutually coordinating their activities.

The regional and authorities at the national level responsible for surveillance, prevention and control measures in humans and animals use established list of infectious diseases for mandatory notification, as defined in the Cabinet Regulation 'Procedures for Registration of Infectious Diseases'. The zoonotic diseases included within these lists can be regarded as prioritised. However, there is no agreed cross-sectoral prioritised list of emerging zoonotic diseases for One Health surveillance purposes.

Disease prioritisation is guided by public health significance, potential burden, emergency response requirements, and data from annual sequencing of selected isolates. Prioritisation is also to some extent guided by requirements for regular, structured reporting for zoonotic diseases through the European Food Safety Authority (EFSA). Emerging zoonotic disease surveillance is partly project-based and depends on available funding. Due to restricted resources, particularly for genetic characterisation of the zoonotic pathogens, the country's capacity for detection and investigations of outbreaks of emerging health threats and for maintaining sustainable surveillance are limited.

National reference laboratories in both the human and animal health sectors significantly contribute to surveillance and control activities, however these are not comprehensively implemented in One Health governance for planning and information sharing. Several collaborative efforts across sectors have been successful in the recent years, including responses to COVID-19 outbreaks in animal facilities, *Legionella* investigations in cooperation with CDPC, HI and BIOR, and tick density monitoring for risk population vaccination purposes.

Despite these strengths, certain areas have room for improvement. At present, there is no unified, automated digital database for integrated surveillance and data sharing across the human, animal, and environmental sectors. Capacities for sequencing and bioinformatic analysis are fragmented, particularly in the human health sector, compared to more robust capabilities in the animal and food sectors, centralised by FVS for animal diseases data, and the food and animal laboratory database, centralised by BIOR. Logistical constraints and limited transportation services occasionally affect the timely investigation of outbreaks, particularly in remote locations. In addition, specific SOPs are lacking for intersectoral communication, leading to initial reliance on informal communication, followed by formal documentation. Interconnections between environmental sector laboratories and human/animal health sectors could be improved to facilitate comprehensive environmental surveillance and coordinated responses.

[5] Essential environmental health standards in health care. Geneva: World Health Organization; 2008. https://www.who.int/publications/i/item/9789241547239

[6] Assessment tools for IPC programmes at national level, including a checklist for minimum requirements, instructions for a comprehensive assessment, and an Excel file for comprehensive assessment are available at the WHO website for Core Components for IPC: https://www.who.int/teams/integrated-health-services/infection-prevention-control/core-components

There are no formal One Health training courses or specific and sustained joint training programmes for One Health professionals being developed in the country. There has been some discussion about including a course in medical education, however the lack of resources has limited the possibility of organising this type of training. National authorities participated in the crisis simulation exercise organised by ECDC and there would be great benefit from similar regular exercises being repeated with the local authorities, as well as with neighbouring countries.

Latvia's Climate Change Adaptation Plan up to 2030 addresses the impacts of climate change on certain zoonotic diseases; however, practical operational integration could be strengthened. Current environmental monitoring efforts include wastewater testing for COVID-19, routine tick density monitoring, selected vector-borne disease monitoring, and study of exotic animal disease transmission. Several zoonotic diseases threats have been identified and would need further prioritisation to focus on the most relevant areas and populations at risk. Due to limited resources and the complex nature of the climate change data analyses, possible EU funding and coordination would be beneficial.

Collaboration is limited between the public health and environmental agencies responsible for implementing and updating the plan specifically related to zoonoses within the adaptation plan. Possible integration with climate-related emerging zoonotic disease surveillance and zoonotic risk due to extreme weather conditions should be considered between the sectors. In addition, there are knowledge gaps related to the link between environmental factors and emerging vector-borne diseases. There is also insufficient awareness and training among healthcare professionals directly involved in patient care in the area of newly-emerging diseases influenced by climate change. There is still a significant need for integration of meteorological data into vector-borne disease and other emerging zoonoses surveillance systems.

Recommendations

- Strengthen the cooperation between the public health and animal health sectors, including laboratories and the environmental sector representativeness in the One Health governance for prevention, preparedness and response to zoonotic and environmental health threats at national and regional levels.
- Formalise One Health cross-sectoral strategic planning outside of AMR and establish a cross-sectoral working group between the public health, animal health, and environmental sectors for collaboration, planning, early warning and coordination of integrated actions, including responsibilities, mechanisms for information sharing and decision making, allocation of resources and further integration of surveillance, risk assessment, risk management and risk communication activities.
- Establish a cross-sectoral prioritised list of zoonotic diseases for One Health to be used for molecular surveillance and further integrate molecular surveillance of priority zoonotic diseases and data-sharing mechanisms across sectors.
- Proceed to sustainable programmes for the prioritised diseases and emerging public health threats, including those of environmental origin and due to climate change.

Other capacities not assessed in-depth

Policy, legal and normative instruments for implementing the International Health Regulations (IHR) 2005 (Capacity 1)

Latvia's legal framework for health emergency preparedness is well established.[7] Key legal acts defining the public health system include Medical Treatment Law, Epidemiological Safety Law, Law on the Rights of Patients, Health Care Financing Act, and Pharmaceutical Law.

The International Health Regulations (IHR 2005) have been implemented at national level with the Regulation on Procedures for the Implementation of Public Health Measures. The regulation assigns the SEMS as National Focal Point (NFP) to the IHR, defines the reporting obligations of various authorities, and the response measures in international travel and at designated PoE. The MoH is in the process of revising the Regulation to implement the amendments to IHR adopted in 2024 and there are ongoing discussions, for example, on the designation of the National IHR Authority.

To coordinate the implementation of IHR in various sectors, a 'Cross-sectoral IHR Committee' has been established under the MoH. This Committee involves representatives from different ministries and state agencies as well as regional level authorities. However, this fragmented approach, while all-hazard, has resulted in the IHR implementation being seen as the responsibility of the health sector, and to a lesser extent the food and animal sector, since the Committee was established under MoH. With the exception of coordinating responses to IHR SPAR and the Report on prevention, preparedness and response planning, based on Article 7 of the Regulation (EU) 2022/2371, the Cross-sectoral IHR Committee has not been active in recent years. Despite the all-hazard scope of IHR, there is a lack of advocacy for IHR from ministries other than the MoH. The responsibilities for various IHR

[7] The Constitution of the Republic of Latvia adopted by the Constitutional Assembly on 15 February 1922. Available at https://likumi.lv.

capacities are fragmented and split across several different ministries. IHR implementation is seen as mainly the responsibility of the health sector and, to a lesser extent, the food and animal sector.

As part of the national implementation of the Critical Entities Resilience Directive, Latvia has designated critical service providers in the health sector, including hospitals and medicine wholesalers. SEMS is in the process of defining the methodology for evaluating the readiness of these actors. Implementation of the NIS2 Directive has been coordinated by the Ministry of the Interior.

At present, the IHR NFP at the SEMS has four experts on rotation for 24/7 duty, all of whom have access to the IHR notification system (EIS) as well EWRS and knowledge on multisectoral coordination. It could be beneficial to increase the pool of experts available for this duty and ensure competency through training, exercises, and regular service in peace time. There is little experience on the process of decision-making as to whether an event constitutes a public health emergency of international concern and needs to be notified.

Latvia's Plan for the Promotion of Equal Rights and Opportunities for Women and Men 2021–2023 does not specially address prevention, preparedness and response to health crises. The National Disaster Medicine Plan does not differentiate between genders or discuss the impact of health emergencies from a gender perspective.

Recommendations

- Ensure the revision of the legal framework, based on experience from recent crises to improve the effectiveness of crisis management.
- Organise regular meetings and training with all relevant stakeholders to improve IHR advocacy and engagement of the cross-sectoral IHR committee, and include training and awareness of IHR and EWRS reporting criteria and mechanisms.
- Include provisions on the impact of gender on health emergency management when revising the National Disaster Medicine Plan.

Financing (Capacity 2)

There is a budget line in the national budget 'Funds for Unforeseen Events', used to obtain funds rapidly during emergencies. There is no special fund for health-specific emergencies, but the fund for all hazards has been used for health emergencies, such as the COVID-19 pandemic. The procedures for requesting emergency funds and the mechanism for obtaining them are often used, and they work well.

IHR capabilities are funded by the health sector agency budgets and do not rely on funds from any external organisations. Funding mechanisms for emergencies are well-established, however public health systems for early detection, early verification, and rapid data collection for disease threats are under-resourced. Challenges to the financing of primary healthcare and primary infectious disease detection (e.g. reimbursement of diagnostic testing) limit the effectiveness of prevention, preparedness and response.[8] Investments to strengthen primary disease surveillance and detection of biological threats can ultimately bring cost-savings to the health system and facilitate effective management of public health crises.

Recommendations

- Ensure sufficient financing for key public health functions for detection and verification of disease threats.

Human resources (Capacity 5)

The current demographic situation and its forecast presents a challenge for the medical system with an aging population. The country has one of the lowest medical personnel rates in the EU (73 per 10 000 inhabitants compared to 121 per 10 000 in the EU on average). Latvia also has the lowest hospital medical staff ratio in the Baltic countries and one of the lowest in the Organisation for Economic Co-operation and Development (OECD). However, there are some positive signs in the age structure of doctors as the proportion of young doctors is increasing and is higher than the EU average.

To address some of these challenges, Latvia has rolled out the Healthcare Workforce Development Strategy 2025–2029 which aims to optimise workforce through restructuring and redistribution of responsibilities to enhance service delivery, workforce diversity and accessibility and to improve public health emergency response. Other initiatives include the introduction of a military medicine fundamentals course at Riga Stradins University and the addition of disaster medicine methods to medical practice guidelines. Discussions are ongoing about the development of a paramedic profession, which is seen as an essential resource in responding to disasters, crises, and other emergency situations.

The Register for Medical Practitioners and Medical Support Staff, maintained by the Health Inspectorate, is outdated and requires manual data entry, leading to delays and preventing real-time data availability. The register lacks interoperability with other state registers and this limits its efficiency and integration with healthcare and administrative systems. To tackle this, the modernisation of the Medical Practitioners and Medical Support Staff

[8] Behmane D, Dudele A, Villerusa A, Misins J, Kļaviņa K, Mozgis D, et al. Latvia: Health System Summary, 2024. Copenhagen: European Observatory on Health Systems and Policies, WHO Regional Office for Europe; 2024. Licence: CC BY-NC-SA 3.0 IGO. https://eurohealthobservatory.who.int/publications/i/latvia-health-system-summary-2024

Register is foreseen under the Healthcare Workforce Development Strategy 2025–2029. This initiative is supported by the European Commission's Directorate-General for Structural Reform Support, which includes the development of technical specifications for upgrading the register's information system.

The procedure for identifying critical infrastructure ensures service continuity by prohibiting contract termination during emergencies, outlining staff duties and training, and establishing measures for workforce reinforcement. Latvia has several mechanisms to increase healthcare staff during public health emergencies, but these are not a structured operational instruments and they are not routinely updated. First, there is a tested legislative package that can be rapidly re-submitted to the Cabinet of Ministers to increase human resources, for example by establishing broader permissions for public health staff, involvement of medical residents and students, and a call for individuals with medical background to voluntarily apply for work in hospitals. Another mechanism is the SAIRIS system that ensures data exchange on physical and human resources in the hospitals across the country. Hospitals input some staff data daily, but overall human resource statistics are updated quarterly. There is an established hospital cooperation network, allowing for close cooperation among hospitals, and therefore it is believed that transfer of staff in emergency situations would work smoothly.

Some administrative solutions, such as extending working hours, introducing ad hoc digital tools or outsourcing certain activities, are also available.

The mechanisms described cover hospital services, to a certain degree laboratory services and other public health services, however they omit primary care services. The national health fund is the contact point for the Disaster Medical Centre as regards matters related to primary healthcare service provision. Tasks for primary healthcare in a public health emergency are not yet clearly defined and there is no requirement for a preparedness plan, stockpiling or training for primary healthcare.

Recommendations

- Enhance existing systems or implement a new digital public health emergency management system to efficiently manage surge capacity in human resources, ensuring its interoperability with other systems, such as the Medical Practitioners and Medical Support Staff Register.

Health service provision (Capacity 7)

Critical health services have been identified in the National Disaster Medicine Plan, and Cabinet Regulation No. 508 requires business continuity plans for critical infrastructure institutions. Hospitals are required to have hospital disaster medicine plans, as per Cabinet Regulation No. 948. Hospitals must update their plans at least once per year and include items such as notification and alert procedures, response actions, and a training plan. Hospital disaster medicine plans are reviewed and agreed with SEMS. Hospitals are tasked with implementing the plans jointly with the organisations mentioned in their plans, including municipal governments, which oversee waste/sewage management, transportation, and other critical resources. SEMS helps to organise exercises that bring together local and national stakeholders in health emergencies.

The State Operational Medical Commission oversees coordination of healthcare institutions in emergency situations, prioritising critical medical services. Data on hospital resources, including bed availability, incidents, service disruptions, and emergency hospitalisations, are reported daily to the SAIRIS system, which facilitates coordination of healthcare service provision during emergencies. This healthcare resource information system has potential for further use in analysing risks to healthcare service provision and resource planning for specific scenarios.

The primary health care sector is not yet included in the National Disaster Medicine Plan, however inclusion of primary care is a priority with this year's update. Representatives from the primary care sector should be involved in planning and training for health emergency management. The role of primary care providers in the early detection and alert of health threats needs to be strengthened. A main challenge is the lack of reimbursement and logistical support for diagnostic testing in primary care. However, primary care providers are well-positioned to detect outbreaks before they become severe or widespread, if provided with resources for diagnostic testing and integrated into health alert systems. Establishing ways to rapidly obtain clinical data and clinical specimens from primary care for the public health response structure should therefore be included in the necessary updates to disease surveillance and detection (diagnostic testing) systems.

Recommendations

- Make use of SAIRIS data on healthcare use to anticipate risks to healthcare services and inform planning for health emergencies.
- Strengthen primary healthcare and public health activities in response to signals and small outbreaks to minimise large-scale outbreaks. As early detection, early warning, and early case data analyses are vital for timely control of disease threats, the primary care sector needs to be supported and integrated into these public health activities. This is particularly relevant for pre-emergency and lower-level public health events that do not trigger the State Emergency Medical Plan, channels for event and case data reporting, clinical specimen collection, laboratory data submission, and communications which should be well established and exercised.

Risk communication and community engagement (Capacity 8)

The Communication Policy of the Ministry of Health, the NCPP, and the NDMP are among the key documents guiding risk communication and community engagement efforts. In times of crisis, the Communication Department of the Ministry of Health participates in the meetings of the SOMC to advise on communication strategy and tasks for its subordinate institutions. At the beginning of a major emergency, a communication specialist from various health sector institutions under the MoH might be also present at SOMC to facilitate the information exchange and provide technical input on communication strategy.

Conventional media is the preferred risk communication channel, with press releases and interviews used to disseminate messages. In the event of an emergency, the 112 application is available, facilitating communication with vulnerable groups. A cell broadcast system is currently under development. Social media is used to address misinformation, disinformation, and public concerns gathered through feedback mechanisms, such as hotline calls, public surveys, or social media comments. It was noted that the presence of key experts needs to be increased across the public health field of the media as it helps with risk communication during a public health emergency. Media monitoring summaries are provided by the Ministry of Health, the CDPC, and the State Chancellery. A fact-checking process is used during major public health emergencies. The management and coordination of communication were seen as important tasks during an emergency, with examples of both good practice and lessons learned. Coordination of risk communication with the Health Security Committee (HSC) is not included in any official plan although the National Disaster Medicine Centre serves as a national HSC representative.

When it comes to community engagement, stakeholder mapping is available in the Communication Policy of the Ministry of Health, but the Policy does not provide sufficient details on how community engagement should be organised. The Ministry of Health communicates with medical staff, including general practitioners, doctors, and nurses, but communication with civil society is sporadic.

The use of ECDC-supplied visual materials for risk communication and community engagement in Latvian would be helpful.

Recommendation

- Further define community engagement aims, procedures and tools needed for an effective response to a public health emergency. Specify the roles of different actors, including political leaders, in the pre-bunking and de-bunking of misinformation and disinformation. Increase the use of available resources, such as the ECDC Lighthouse project, and WHO's operational toolkit on managing false information in health emergencies.

Points of Entry (PoEs) and border health (Capacity 9)

In Latvia, three airports and three seaports (Riga, Liepaja and Ventspils) are officially designated PoE following International Health Regulation standards. Latvia has 11 land crossings with Russia and seven with Belarus, however these are not designated PoEs. Border crossings with Estonia and Lithuania are open crossings and are not designated PoEs.

Riga airport is the only PoE that has an emergency medicine unit on site, available 24/7. The airport adheres to an all-hazard emergency preparedness and response plan that is regularly updated. Liepaja airport does not currently have any regular commercial international air traffic. The airport has an all-hazard emergency preparedness and response plan, which was last updated in 2024. Ventspils airport also does not have any regular commercial international flights, the public health emergency plan is not fully developed and there will probably be a suggestion to remove its role as designated PoE during 2025. All three designated seaports issue ship sanitation certificates and have public health emergency preparedness plans available that are routinely updated.

The designated PoEs are served by an extensive network of ambulance teams linked to healthcare provision in nearby hospitals. This is most prominent in the Riga region, which is also where most air and sea traffic occurs. There is also a wide diversity in terms of resources available among the different PoEs, including PPE and quarantine approaches or possibilities.

All designated PoEs perform regular all-hazard training and full-scale exercises, including all relevant actors. In 2024, these included a simulation exercise for a radio-nuclear incident at Riga International Airport, a mass casualty event at Liepaja Airport and a table-top discussion on response in the event of a public health threat at Riga seaport. The regular training courses, especially at airports, are identified as an important strength for overall PoE capacity. There is also a fast and direct notification mechanism for risk assessments and implementation of mitigation measures.

The fragmented structure at PoEs in terms of private/governmental responsibilities was identified as one of the challenges of the PoE system. Private actors are routinely responsible for the day-to-day activities at PoEs, including aspects of security. A formalised, or legislative framework has been proposed to mitigate this challenge, with clear division of responsibilities between governmental and private sectors at PoEs.

Recommendations

- Clarify in legislation or other formalised framework, the roles and responsibilities for governmental and private actors in relation to IHR at PoE.

Chemical events (Capacity 11)

The legal framework for managing chemical events is intersectoral and includes the Civil Protection and Disaster Medicine Systems, with relevant plans in both sectors. The NCPP includes three types of chemical-related risks: leakage of hazardous chemicals at a facility, road traffic accidents, and rail transport disasters. The NDMP includes one generic action — response in the event of a chemical accident. These plans are aligned and outline the roles and action algorithms for various actors. The State Fire and Rescue Service (SFRS) is the first responder to chemical events, while other agencies, such as SEMS, CDPC, the Health Inspectorate, the State Environmental Service, the State Police, municipalities and hospitals, act within their mandates. However, not all agencies involved in response operate on a 24/7 basis. A modified algorithm would be applied in the event of a substance or object of unknown origin being suspected of containing CBRN-E substances, or if a terrorist attack is indicated. There are no specific cross-border plans for chemical events.

For facilities at greater risk and infrastructure that is critical preparedness is ensured by developing and updating civil protection plans and organising annual practical exercises for SEVESO-type objects, with the involvement of relevant services. SEMS may participate in simulation exercises remotely due to resource unavailability. A recurring conclusion from simulation exercises is the insufficient availability of chemical substance and gas detectors for self-protection, along with a lack of training in their use. Moreover, while decontamination tasks are allocated, their practical implementation might be limited by the availability of resources. Another recent conclusion from a simulation exercise is that hospitals need to increase their PPE, decontamination equipment, and antidote supplies. The NDMP is being updated to enhance hospital preparedness. There is a request for additional funding to procure the necessary resources.

In the event of a chemical incident, the Health Inspectorate will be tasked by the State Environmental Agency to describe the toxicological profile and produce a health risk assessment. As the owner of the Registry of Chemical Substances and Mixtures, the Latvian Environment, Geology, and Meteorology Centre will support this process. During environmental emergencies, the Institute of Food Safety, Animal Health and Environment (BIOR) is also tasked by the State Environmental Agency or the Latvian Environment, Geology, and Meteorology Centre to provide accredited laboratory services, including various GC-MS, HPLC-MS, HRMS analytics, for the testing of various chemical contaminants in the food chain or the environmental matrices.

To detect and provide consultations on poisoning cases, a poisoning centre operates 24/7 under Riga's East Clinical University Hospital. Notification requirements for doctors and hospitals to report poisoning cases are described in Cabinet Regulation No. 948 Regulations on the Organization of the Disaster Medical System.

The CDPC is primarily responsible for biological threats, however it may be involved when the source of a threat is unknown, as happened with a case of vitamin A intoxication.

Recommendations

- Increase availability of chemical and gas detectors for self-protection of first responders.
- Increase the availability of PPE for field decontamination and hospitals and conduct regular training on its proper use.

Union level coordination and support functions (Capacity 13)

Latvia has strong engagement and representation in EU collaboration for health emergency preparedness and resilience planning. There are defined contact points for collaboration and communication with various EU bodies including the Health Security Committee, the Board of HERA, ECDC, the European Medicines Agency (EMA), the European Chemicals Agency (ECHA) and EFSA. Routine collaboration is also described to some extent in national legal instruments and plans, including the National Disaster Medicine Plan.

The SEMS and CDPC both serve as national competent authorities to the EWRS. In case of an event of biological or unknown origin, the CDPC oversees posting an alert in EWRS or responding to notifications from EWRS. In the event of chemical or environmental hazards, the SEMS is responsible for posting alerts and monitoring the notifications and passing on the information to relevant authorities and the MoH.

HSC opinions and guidance, European Commission recommendations and ECDC advice are routinely factored in and applied for national purposes with the prevention and control of serious cross-border threats to health.

Recommendations

- Make specific references to EU regulations and IHR when updating relevant national legislation and plans, for example the National Disaster Medicine Plan, to further strengthen and formalise the international collaboration.
- Strengthen the role of the MoH and national coordination in EU collaboration –e.g. in the HSC.
- Strengthen the role of the EWRS national competent authorities in ensuring exchange of information between other EU/EEA countries and national competent authorities regarding biological, chemical, environmental and unknown hazards.

Research development and evaluations to inform and accelerate emergency preparedness (Capacity 14)

During the COVID-19 pandemic, Cabinet Order No. 278 relating to the national research programme was approved. This Order aimed to develop scientific forecasts for future action from autumn 2020−2022. The requirements for conducting clinical trials and using data, as well as ethical issues, are set out in the Pharmacy Law, the Patients' Rights Law, the Scientific Activities Law, and Cabinet Regulation No. 192, Regulation No. 455 and Cabinet Order No. 9. Latvia actively participates in EU-funded research projects, such as the EU4Health project, including CT-CURE for coordinated and expedited asssesment of clinical trials for COVID-19 and EU WISH for wastewater research.

Latvia is a small country and research is often sub-contracted to gain specific expertise as instutions often lack resources. At present, there are a number of informal collaboration projects in the research community but these are not formally linked to emergency mechanisms which can lead to challenges in crisis situations. In Latvia, the State Disaster Medicine Plan does not currently have a specific section on research.

Recommendations

- Map relevant stakeholders in academia and public health institutions in Latvia and initiate discussions to define and structure research within preparedness and response for inclusion in the National Disaster Medicine Plan.
- Map existing capacities and make procedures as lean as possible to enable outsourcing and engagement of the research community in emergency situations. Investigate the development of pre-collaborations/memoranda of understanding to optimise operational readiness and include more formal agreements where needed (e.g. data sharing, mobilisation of funding, authorship, leadership).

Recovery elements (Capacity 15)

The National Civil Protection Plan and National Disaster Medicine Plan include a section on recovery. During and after the COVID-19 pandemic, lesson learned activities (in-action reviews, after-action reviews and simulation exercises) have been conducted, including all levels and sectors involved with the response.

The process of capturing lessons learned through activities is not systematic, and therefore the recovery section in the National Disaster Medicine Plan should further elaborate on the importance of conducting activities after each event within each sector/agency. In addition, a recommended methodology should be specified (e.g. ECDC/WHO or nationally-developed). Efforts should also be made to ensure that training in the conducting of such exercises is prioritised, with clear roles and responsibilities (e.g. for a specific event the responsibility for leading and coordinating would be under a specific sector, depending on the nature of the event). The recovery section of the plans does not elaborate on how to support staff in recovering after crisis −e.g. rehabilitation for mental health, time off, etc.

Recommendation

- Strengthen the recovery section in the National Disaster Medicine Plan to include the importance of conducting lessons learned activities after each event within all sectors. This should outline roles and responsibilities and training requirements. The recovery section should also include training for experts on conducting AAR. Provisions should be included for staff recovery after crisis situations.

Actions taken to improve gaps found in the implementation of prevention, preparedness, and response plans (Capacity 16)

Following the Joint External Evaluation (JEE) in 2017, the National Action Plan for Health Security (NAPHS) was developed using WHO methodology and included all recommendations. However, as a result of the COVID-19 pandemic, several of the actions that were developed for the NAPHS were not fully implemented. The NAPHS should therefore be updated to include recommendations from the lessons learned exercises (e.g. simulation exercises and after-action reviews conducted during and after the COVID-19 pandemic, as well as recommendations from the PHEPA). Responsibility for the NAPHS update should be at ministry level, with SEMS cooperation, and it should outline specific actions and assign responsibilities to all relevant stakeholders (since actions are cross-sectoral) and establish clear timelines to address challenges identified in the response.

Recommendations

- Update the NAPHS and include recommendations from lessons learned activities and recommendations from the PHEPA. Define ownership, roles and responsibilities, and timeline.

Conclusions

The assessment confirmed that in Latvia there is a good understanding of the state of health emergency preparedness and response, as well as a strong culture of testing and exercising. Collaboration between key stakeholders is functional, although not often formalised. Further commitment is needed to translate the recommendations from lessons learned exercises during and after the COVID-19 pandemic, and the recommendations from the Joint External Evaluation (2017) and the PHEPA (2025) which are still relevant into action.

The Latvian team provided relevant documents for the documentary review and informative presentations on in-depth capacities in order to facilitate understanding. During the country mission the sessions were well prepared, and each capacity started with a presentation from Latvian experts, including relevant information for discussion. Representatives from most of the institutions relevant for the assessment participated in the sessions, but there was a lack of local level representation. Following the discussions, several additional recommendations were developed, with the aim of sustaining strengths and addressing challenges in the country.

Annex 1. List of capacities included in the assessment

Table 1A. List of capacities included in the assessment

Capacity no.	Capacity name
Capacity 1.	International Health Regulation (IHR) implementation and coordination
Capacity 2.	Financing
Capacity 3.	Laboratory
Capacity 4.	Surveillance
Capacity 5.	Human resources
Capacity 6.	Health emergency management
Capacity 7.	Health service provision
Capacity 8.	Risk communications and community engagement (RCCE)
Capacity 9.	Points of Entry (PoEs) and border health
Capacity 10.	Zoonotic diseases and threats of environmental origin, including those due to the climate
Capacity 11.	Chemical events
Capacity 12.	Antimicrobial resistance (AMR) and healthcare-associated infections
Capacity 13.	Union level coordination and support functions
Capacity 14.	Research development and evaluations to inform and accelerate emergency preparedness
Capacity 15.	Recovery elements
Capacity 16.	Actions taken to improve gaps found in the implementation of prevention, preparedness and response plans

Annex 2. Practical arrangements for the assessment process

This document describes the main practical arrangements for the PHEPA (under Article 8 of the SCBTH Regulation) before the assessment process begins.

The arrangement refers to the country visit to Latvia that took place from 17 to 21 March 2025 at the Emergency Medical Assistance Service, Duntes Iela 8, LV-1013, Riga.

The five capacities that were assessed in-depth in this cycle were:

1. Capacity 3. Laboratory
2. Capacity 4. Surveillance
3. Capacity 6. Health Emergency Management
4. Capacity 12. Antimicrobial resistance (AMR) and healthcare-associated infections (HAIs)
5. Capacity 10 Zoonotic diseases and threats of environmental origin, including those due to the climate.

*The fifth capacity was chosen by the country and agreed with ECDC.

Assessment team and national experts

Assessment team

The experts involved in this assessment are detailed in the table below.

Members of the assessment team			
Name	**Institution (ECDC/other agencies)**	**Role in the team (team leader/expert)**	**Main capacity of expertise/supported in the assessment process**
Daniel Palm	ECDC	Team Lead	Laboratory, surveillance, Points of Entry and border health, AMR and HAI, Union-level coordination and support functions, research development and evaluations to inform and accelerate emergency preparedness
Vivian Leung	ECDC	Expert	AMR, financing, surveillance zoonotic diseases, health service provision
Marieke van der Werf	ECDC	Expert	Surveillance, Human resources, Health service provision
Kim Brolin	ECDC	Expert	IHR implementation and coordination, health emergency management, actions taken to improve gaps found in the implementation of prevention, preparedness and response plans
Taina Niskanen	ECDC	Expert	Zoonotic diseases, Surveillance, Risk communications and community engagement (RCCE)
Favelle Lamb	ECDC	Expert	Health emergency management, research development and evaluations to inform and accelerate emergency preparedness, recovery elements, actions taken to improve gaps found in the implementation of prevention, preparedness and response plans
Jevgenijs Golovcuks	ECDC	Expert	Health emergency management, financing, human resources, chemical events, Recovery elements, risk communication and community engagement (RCCE)
Silvija Steckytė	Lithuania, National Public Health Centre	Expert	Chemical event, AMR and HAI, risk communication and community engagement (RCCE), zoonotic diseases
Luka Delak	Croatia, Ministry of Heath	Expert	Zoonotic diseases, health service provision, human resources
Paula Tiittala	DG SANTE	Expert	IHR implementation and coordination, health emergency management, Union level coordination and support functions
Pierre-François Baulieu	DG HERA	Expert	Health emergency management - medical countermeasures

National experts supporting the document sharing

The aim of this section is to facilitate the identification of the national focal point coordinating the implementation of the PHEPA at country level and acting as ECDC contact point. In addition, the table includes information on the national experts that have access to the SharePoint site set up by ECDC and are supporting the document collection and sharing with the assessment team for Phase 1: Desk review.

Country focal point(s) and experts involved in the document sharing process			
Name	**Email address**	**Organisation**	**Role (focal point/document sharing)**
Indra Linina	indra.linina@nmpd.gov.lv	Deputy Head, Unit of Disaster Medicine Preparedness Planning and Coordination, State Emergency Medical Service	Focal Point
Zane Gailite	zane.gailite@nmpd.gov.lv	Specialist of the Unit of Disaster Medicine Preparedness Planning and Coordination, State Emergency Medical Service	Alternate Focal Point

National experts participating in the assessment process			
Name	**National institution**	**Role in the assessment (Coordinator, Expert)**	**Main capacity to assess**
Indra Liniņa indra.linina@nmpd.gov.lv	State Emergency Medical Service	Coordinator	Capacity 1. IHR implementation and coordination
Svetlana Batare svetlana.batare@vm.gov.lv	Ministry of Health	Expert	Capacity 2. Financing
Oksana Savicka Oksana.Savicka@aslimnica.lv	Riga East University Hospital, Laboratory (NRC)	Expert	Capacity 3. Laboratory
Jurijs Perevoščikovs jurijs.perevoscikovs@spkc.gov.lv	Disease Prevention and Control Centre	Expert	Capacity 4. Surveillance
Laura Vanaga laura.vanaga@vm.gov.lv Guna Jermacāne guna.jermacane@vm.gov.lv	Ministry of Health	Expert	Capacity 5. Human resources
Ilze Grolle ilze.grolle@nmpd.gov.lv	State Emergency Medical Service	Expert	Capacity 6. Health emergency management
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Oskars Šneiders oskars.sneiders@vm.gov.lv	Ministry of Health	Expert	Capacity 8. Risk communications and community engagement (RCCE)
Indra Liniņa indra.linina@nmpd.gov.lv	State Emergency Medical Service	Coordinator	Capacity 9. Points of Entry (PoEs) and border health
Ieva Rimšāne ieva.rimsane@spkc.gov.lv	Disease Prevention and Control Centre	Expert	Capacity 10. Zoonotic diseases and threats of environmental origin, including those due to the climate
Ilze Grolle ilze.grolle@nmpd.gov.lv	State Emergency Medical Service	Expert	Capacity 11. Chemical events
Ieva Voita *ieva.voita@spkc*.gov.lv Jurijs Perevoščikovs jurijs.perevoscikovs@spkc.gov.lv	Disease Prevention and Control Centre	Expert	Capacity 12. AMR/HAI
Kristīne Daukševica kristine.dauksevica@vm.gov.lv Guna Jermacāne	Ministry of Health SEMS	Expert	Capacity 13. Union level coordination and support functions

National experts participating in the assessment process			
Name	**National institution**	**Role in the assessment (Coordinator, Expert)**	**Main capacity to assess**
guna.jermacane@vm.gov.lv Dita Heiberga Dita.heiberha@nmpd.gov.lv			
Laura Boltāne *laura.boltane*@vm.gov.lv Guna Jermacāne guna.jermacane@vm.gov.lv Uldis Berkis Uldis.berkis@izm.gov.lv	Ministry of Health Ministry of Education and Science	Expert	Capacity 14. Research development and evaluations to inform and accelerate emergency preparedness
Guna Jermacāne guna.jermacane@vm.gov.lv Dita Heiberga Dita.heiberga@nmpd.gov.lv	Ministry of Health SEMS	Expert	Capacity 15. Recovery elements
Guna Jermacāne guna.jermacane@vm.gov.lv Dita Heiberga Dita.heiberga@nmpd.gov.lv Indra Linina Indra.linina@nmpd.gov.lv	Ministry of Health SEMS SEMS	Expert	Capacity 16. Actions taken to improve gaps found in the implementation of prevention, preparedness and response plans

Agenda for the country visit

Location: SEMS premises, Duntes St. 8, Riga

Day 1 – Monday 17 March
Welcome and registration
Opening remarks
Overview and key aspects of the assessment process (ECDC)
Overview of the country public health structure and preparedness and response mechanisms in the country
Break
Assessment of cross-cutting aspects
Lunch
Assessment of cross-cutting aspects (continued)
C.1 IHR and C.9 PoE
Break
IHR and C.9 PoE (continued)
Wrap-up Day 1
Day 2 – Tuesday 18 March
Registration
C.2 Finance, C.5 Human Resources and C.7 Health Service Provision
Break
C.13 Union-level coordination and C.11 Chemical events
Lunch
C.8 RCCE
Break
C.14 Research
Wrap-up Day 2
Day 3 – Wednesday 19 March
Registration
Breakout sessions • C.4 Surveillance • C.6 Health emergency management
Break
Breakout sessions • C.4 Surveillance • C.6 Health emergency management
Lunch
Breakout sessions • C.12 AMR/HAI • C.6 Health emergency management
Break
Breakout sessions • C.12 AMR/HAI • C.6 Health emergency management

Day 4 – Thursday 20 March
Registration
Breakout sessions • C.3 Laboratory • C.10 Zoonotic disease and environmental threats
Break
Breakout sessions • C.3 Laboratory • C.10 Zoonotic disease and environmental threats
Lunch
C.15 Recovery and C.16 Action Plan
Wrap-up Day 4
Day 5 – Friday 21 March
Debriefing session ECDC/Country Focal Point
Registration
Main Findings and Conclusions
Lunch
Debrief on the ECDC assessment process (structure, preparation, organisation)

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