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European Region

Health Information System Assessment in Latvia

ASSESSMENT SUMMARY REPORT

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Data. Evidence and Digital Health
Division of Country Health Policies and Systems
WHO Regional Office for Europe



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Abbreviations

AI	Artificial Intelligence
BI	Business intelligence
CSB	Central Statistical Bureau
CDPC	Centre for disease prevention and control
CSV	Comma-Separated Values
EHDS	European Health Data Space
EMR	Electronic medical record
EU	European Union
GDPR	General data protection regulation
GP	General practitioner
HIN	European health information network
HIS	Health information system
ICD-10	International classification of diseases, tenth revision
ICT	Information and communication technology
LDHC	Latvian digital health centre
MoH	Ministry of health
NHS	National health service
SWOT	Strengths, weaknesses, opportunities and threats
WHO	World health organization

1. Executive summary

In October 2025, a health information system (HIS) assessment was performed by World Health Organization Regional Office for Europe (WHO/Euro) in Latvia. The methodology as described in WHO's Support tool to strengthen health information systems: guidance for health information system assessment and strategy development (WHO/Euro Support tool)¹ was used. This methodology entails a preparatory desk review, and a country visit during which key HIS stakeholders are interviewed. More details about the assessment methodology are provided in section 3 of this report.

The main outcomes of the assessment are summarised here in the form of a HIS maturity score spider plot, SWOT analysis (strengths, weaknesses, opportunities, and threats), and a table with policy considerations. A maturity score has been determined for each of the following HIS domains: Data sources; Data infrastructure and management; Analysis; Health reporting; Knowledge translation; and Governance and resources. More details about the findings of the assessment are presented in section 4 of this report.

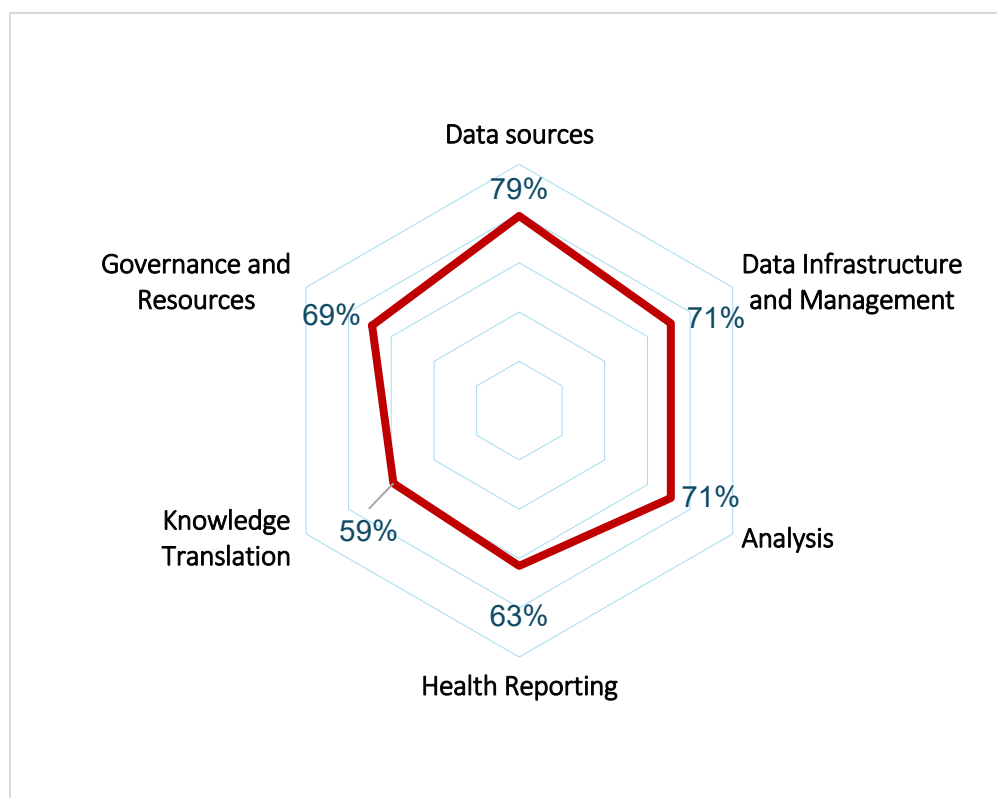
HIS maturity score

The maturity scores for each of the main HIS domains provide insight into how far the current development of the HIS is still removed from full maturity. In a fully mature HIS, the score for each of the domains would be 100%.

As shown in Fig. 1, the HIS in Latvia generally is well developed. The Data sources domain has the highest maturity score at 79%, with the Data infrastructure and Management domain having a slightly lower score of 71%. The Analysis domain also has a maturity score of 71%. There is some more room for improvement for the domains of Governance and resources (69%) and Health Reporting (63%). The least developed domain is Knowledge Translation, which has a maturity score of 59%. Overall, the HIS can be described by well-established data collection processes for regular health statistics, based on a solid legal framework, and good inter-institutional collaborations. Related to digitalization, the HIS can be characterized as being in transition. The assessment shows that generally there is a good overview of what needs to be done in terms of digitalization, and multiple digitalization efforts are ongoing. The regulatory framework is flexibly being amended and strengthened based on bottlenecks experienced in practice. However, the assessment also revealed several risks that might hamper consistent and sustainable further digitalization of the HIS. Issues such as varying levels of digital development in health facilities, shortage of resources, and limited digital skills among the health workforce and the population can, if not addressed properly, result in the inability to sufficiently maintain and upgrade digital tools, nullifying earlier investments, and in inequalities as certain facilities or population groups may not be able to keep up with the digital transition.

More details on the information underlying the calculation of the maturity scores are provided in section 4.

¹ World Health Organization. Regional Office for Europe. (2024). Support tool to strengthen health information systems: guidance for health information system assessment and strategy development, second edition. World Health Organization. Regional Office for Europe. <https://iris.who.int/handle/10665/376978>. License: CC BY-NC-SA 3.0 IGO

Fig. 1. Maturity scores for the main HIS domains

SWOT analysis

Table 1. SWOT analysis

Strengths	Weaknesses
- Well-established data collections - Very complete and high-quality data on births and (causes of) deaths - Unique personal identifier in place and consistently used across government domains - International data requirements can be met - Legal framework for data collection - Dedicated staff and good inter-institutional collaborations - Central e-Health system is in place - Establishment of Latvian Digital Health Centre (LDHC) - Various ongoing digitalization projects, leveraging of EU funds	- Data quality issues and data gaps - Potential double reporting on provided health services to the National Health Service (NHS) and the Centre for Disease Prevention and Control (CDCP) - Apparent confusion about to what extent filling in the e-Health system is mandatory - Paper, Excel files, and manual data processing still substantial - Information systems are outdated and not integrated - Unstructured data, lack of application of unified interoperability standards across local electronic information systems in the health facilities - Information systems pose additional reporting burden for health workforce

	• Mechanisms for using data to inform policymaking can be strengthened • Lack of resources
Opportunities	Threats
• European Health Data Space (EHDS) implementation • European Union (EU) funding • Implementation of the Digital Health Strategy • Ongoing projects • Leveraging the potential of Artificial Intelligence (AI) • Sharing experiences with other countries (for example through the WHO European Health Information Network)	• Limited digital skills in the population • Resistance to change among the health workforce • Disparities in digital maturity between health care providers • Project-based approach and dependency on donor funding

The more detailed assessment findings that were used to inform this SWOT analysis can be found in section 4 of the report.

Policy considerations

Table 2 provides a quick overview of policy considerations based on the assessment findings. Short-term means that the suggested action can be implementable within one year, medium term means implementable within one to two years, and long-term means that implementation is expected to take more than two years. More details can be found in section 5 of the report.

Table 2. Policy considerations

Policy consideration for national authorities	Time frame for implementation
Invest in the further digitalization of infectious disease surveillance.	Immediate – short term
Investigate signals of double reporting on provided health services by health facilities to NHS and CDPC.	Short term
Strengthen coordination to improve health information system governance.	Short-medium term
Establish central guidance for improvement of data quality in the e-Health system.	Short-medium term
Strengthen end-user involvement in the further development of the e-Health system and the wider health information system.	Short-medium term
Improve access to data in the e-Health system and build capacity to stimulate a data-driven culture.	Short-medium term
Strengthen analytical capacity.	Short-medium term
Strengthen the central governance of interoperability standards.	Medium term
Strengthen digital skills among the health workforce and the population.	Medium-long term

Policy consideration for national authorities	Time frame for implementation
Ensure sufficient and sustainable funding for digitalization.	Long term

2. Introduction

The Data, artificial intelligence and digital health (DAD) unit of WHO Regional Office for Europe is implementing the EU-funded Action to *Strengthen health information systems and boost data governance*, which runs from August 2023 until July 2027. This Action covers all 53 Member States of the WHO European Region and includes promoting, where possible, the principles and solutions included in the European Health Data Space legislation. One of the support activities that can be provided to Member States in the framework of this Action is an assessment of the national HIS. The Ministry of Health (MoH) of Latvia expressed interest in such an assessment to support priority setting in the further digitalization in health, particularly in the light of generating useful information on current strengths and weaknesses to inform the work of the recently established Latvian Digital Health Center.

3. Assessment methodology

An assessment of the national HIS was performed based on the methodology described in WHO's *Support tool to strengthen health information systems: guidance for health information system assessment and strategy development* (WHO/Euro Support tool). For the purposes of the current exercise, a compressed version of the tool was used, focusing on the assessment part only, and not on the strategy development part.

As a first step, with the support of the WHO Country Office, a desk review of available documents was performed to prepare for the visit. This included general background information about the country, descriptions of policies and strategies relevant for the HIS and of the main HIS stakeholders and their roles, and an overview of what is already known about the functioning of the HIS².

Next, the WHO Regional Office team together with the Country Office prepared the agenda for the country visit. During the visit, the assessor conducted semi-structured interviews with the main HIS stakeholders in the country. The meeting was concluded with an online multistakeholder meeting, to jointly reflect on the main findings of the assessment. See [Annex 1](#) for the country visit agenda.

The assessment methodology comprises a core module and several add-on modules. The aim of the core module is to obtain a generic overview of the functioning of the entire national HIS. The aim of the add-on modules is to look in more detail at specific parts or functions of the national HIS. For this assessment, the core module was applied, as well as a shortened version of the data governance add-on module, focusing on aspects that are relevant for EU Member States.

The findings of the HIS assessment are summarised in a standard summary and scoring sheet, which discerns the following six HIS domains:

- Data sources: includes assessment of available data collections.
- Data infrastructure and management: includes assessment the level of digitalisation of data collections, the use of metadata standards, data quality control mechanisms, and the secondary use of health data.

² This desk review is available from WHO Regional Office for Europe upon request from the Ministry of Health in Latvia.

- Analysis: includes assessment of availability and use of indicator sets.
- Health reporting: includes assessment of availability and use of health reports.
- Knowledge translation: includes assessment of the extent to which stakeholders are familiar with available health information and knowledge products, and which knowledge translation tools and mechanisms are being used.
- Governance and resources: includes assessment of HIS governance and general HIS resources (legal framework, financial resources and ICT infrastructure).

The summary and scoring sheet with the findings of this assessment can be found in section 4 of the report. During the country visit, the assessor uses a detailed HIS assessment item sheet to guide the semi-structured interviews. The template for this item sheet can be found in the WHO/Euro assessment tool.

The outcomes of the assessment will support the national authorities in setting priorities for the improvement of the HIS and pinpointing specific areas that require further developmental work and capacity-building.

4. Findings and conclusions

In this section, the HIS assessment summary and scoring sheet is presented in the form of tables for each of the main HIS domains: Data sources, Data infrastructure and management, Analysis, Health reporting, Knowledge translation, and Governance and resources. In the tables, a description of the expected situation in a fully mature HIS is given for several specific HIS topics, together with a description of the situation in the assessed country. Based on the comparison between the two, the assessors have scored the maturity level of the assessed HIS using the following approach:

- The situation in the country is comparable to full maturity = 4
- Many elements of an HIS with full maturity are in place but some work is still needed = 3
- Some elements of an HIS with full maturity are in place but substantial work is still needed = 2
- The situation in the country is still very deviant from full maturity = 1

Please note that the description of the expected situation in a fully mature HIS is a hypothetical situation, that provides insight into how much room for improvement there is in the assessed country.

Core module

Data sources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Data sources_1	<i>Vital statistics:</i> registration of births and deaths and associated medical information is complete and up to date. Quality of cause-of-death information is high, and coding is done line with international standards and classifications.	Vital statistics in Latvia have very high coverage (99%), and the percentage of ill-defined causes of death is relatively low compared to other European countries. International Classification of Diseases, Tenth Revision (ICD-10) is used for coding, and coding is done by the CDPC. While physicians receive training on filling in the medical death certificates, there is a need for more training. The CDPC will work with the methodological center on cardiology to prevent overreporting of cardiovascular diseases.	3,5
Data sources_2	<i>Health service records:</i> a centralized EHR system is in place. Tailored aggregated datasets for secondary purposes can be extracted easily. Coverage and quality of the data collected in the EHR system are high. International classifications for coding diagnoses and interventions are integrated. Health insurance data have high coverage and quality, and include ICD-10 codes.	A central e-Health system is in place. It is mandatory for all healthcare providers (public and private) to report in the e-Health system. Nevertheless, there are considerable data gaps– see item Data infrastructure _1 for more information. There are no business intelligence (BI) modules available in the e-Health system yet. There is a demand for this however and a data warehouse that is being developed will facilitate access to the data (see item Data infrastructure _4). In hospitals, Diagnosis-Related Groups are used including ICD10 codes for diagnosis and a national coding system for procedures. Both over-coding (leading to a higher reimbursement than warranted) and under-coding (leading to lower reimbursement than warranted) are happening according to interviewees. For primary health care, where	2,5

Data sources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		payment is mainly based on a per capita system, there are gaps in diagnoses data ³ .	
Data sources_3	<i>Disease registries:</i> a national-level population-based cancer registry is operating according to international standards. Registries for other major chronic diseases are in place; if not, robust morbidity estimates from other sources are available. An electronic surveillance system for infectious diseases is in place, with real-time data. Information on notifiable diseases according to country-specific legislation and IHR is available.	The CDPC maintains registers on 1) cancer, 2) diabetes, 3) substance use disorders, 4) tuberculosis, 5) mental and behavioural disorders, 6) occupational diseases, 7) multiple sclerosis, 8) congenital anomalies/rare diseases, 9) trauma injury or poisoning. Although the registers are integrated with the e-Health system, only one hospital enables automated data extraction from their local electronic medical record system (EMR) into the registers/e-Health system; in all the other facilities, data entry needs to be done manually. The functionality is not deemed user-friendly by healthcare staff. This results in delays, mistakes and incomplete data. Morbidity data for diseases for which there is no registry are lacking. An electronic state infectious diseases monitoring and surveillance system is in place. This is called VISUMS and covers all diseases except HIV/AIDS, COVID-19, influenza-like illness (ILI)/acute respiratory infections (ARI), tuberculosis, and hepatitis C, which have separate surveillance systems/registers. Notification happens either in paper format, by email (protected files) or through an e-notification form. For COVID-19, a new system allowing real-time monitoring was developed based automated data extractions from other information systems, including initially from	2,5

³ This was not discussed in more detail during the assessment, but the types of gaps and flaws usually seen in diagnoses data in a per capita payment system are missing diagnoses (in case the electronic health system does not enforce filling in a diagnosis) and/or high prevalences of the diagnoses listed at the top of ICD chapters, reflecting quickly selecting an approximate diagnosis rather than taking more effort to select the correct diagnosis.

Data sources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		electronic laboratory information systems. There is no funding at the moment to expand this EPID system to other infectious diseases to replace VISUMS, which is technically outdated reportedly and at risk of collapse due to the restructuring of the platform on which it operates⁴. The current situation requires a lot of manual data processing (from health workers, laboratory staff, and CDPC staff), resulting in delays and mistakes. There is a legal basis for mandatory reporting on notifiable diseases. Information on vaccinations is available from the eHealth system.	
Data sources_4	<i>Health surveys:</i> a long-term operational plan is in place for regular conducting of national health interview and health examination surveys. The methodology applied is in accordance with international standards and requirements. Specific effort is made to ensure that hard-to-reach groups are adequately represented. Health and statistical authorities work together on survey design and implementation, and on data analysis and dissemination.	There is a long-term budget for surveys, but this is deemed insufficient as the cost for implementing surveys has increased. A national health interview survey including some measurements (blood pressure, heart rate, body mass index) is performed once every two years. Latvia also implements WHO Health Behaviour in School-aged Children survey (HBSC), WHO European Childhood Obesity Surveillance Initiative (COSI), and WHO Global Youth Tobacco Survey (GYTS) (all once every 4 years), as well as the European School Survey Project on Alcohol and Other Drugs (ESPAD), Prevalence of Addictive Substance Use Among the Population, Drug Use in Prisons (all once every 4 or 5 years) and Respondent-Driven Sampling (RDS) Survey among People	3,5

⁴ One of the recommendations of a recent ECDC Emergency Preparedness Assessment is to: '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.' Source: <https://www.ecdc.europa.eu/en/publications-data/country-report-ecdc-public-health-emergency-preparedness-assessment-latvia-2025>

Data sources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		Who Inject Drugs (PWID). While the CDPC is responsible for the above-mentioned surveys, the Central Statistical Bureau (CSB) is responsible for EU surveys (European Health Interview Survey (EHIS), EU statistics on income and living conditions (EU-SILC), EU labour force survey (EU-LFS)). CSB collaborated with academia on which additional questions to include in the current EHIS round. The Cabinet of Ministers can provide feedback on the questionnaires for national surveys.	
Data sources_5	<i>Health care resources:</i> a national human resources database is in place, with complete coverage, including the annual numbers of graduates. A national database of public and private sector health facilities is also in place, with complete coverage. Each health care provider and facility has been assigned a unique identifier code.	A central register of healthcare staff and healthcare facilities is in place. This is operated by the Health Inspectorate. The register is integrated with the national e-Health system and supports the operations of the NHS. Data for the registry come from multiple sources (e.g., the medical association, educational institutions, healthcare facilities), and are currently manually processed by the Inspectorate, leading to a high reporting burden and delays. The Inspectorate assigns unique numbers to healthcare professionals and healthcare facilities. A new register is being developed with EU-funding, which, through linkages with other information systems, should result in up-to-date and comprehensive information (e.g., including lifelong learning). This new Unified Register of Health Sector Specialists is planned to be operational by 2029.	3
Data sources_6	<i>Health expenditure data:</i> financial records are available on general government expenditure on health and its components. Expenditure data are collected in accordance with System of Health Accounts methodology.	Health expenditure statistics according to System of Health Accounts methodology are prepared annually by the CSB. The mandatory part of System of Health Accounts can be provided to the international organisations.	4
		TOTAL	score (%)

Data infrastructure and management

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Data infrastructure _1	<i>Electronic information systems:</i> health care facilities and providers only use electronic patient records; there is no parallel paper record keeping. The EHR systems compile all information related to the care of an individual patient, and include additional functionalities supporting the health care process (e.g. drug prescription module, clinical decision support tools, eSignatures). The needs of end-users have been taken into account in development of the EHR systems. Patients have access to their own data. Electronic information systems for other essential HIS data collections are in place (e.g. vital statistics, infectious disease surveillance, medicines, medical devices).	Paper record keeping still takes place to a considerable extent. Mostly, a combination of electronic and paper reporting is being used in the healthcare facilities. Reasons mentioned during the interviews for persistent use of paper records included slowness and user-unfriendliness of the central e-Health system, and resistance to change/sticking to known working procedures. In particular historical data have not been digitized yet, forcing doctors to check the paper medical records and the e-Health system (and sometimes also DataMed for visual diagnostic tests) to get a complete picture of a patient. DataMed is a digital solution provided by a private vendor. While most hospitals make use of this paid service, at least for some general practitioners (GPs) it is too costly to have a subscription. Currently, only modules for which there are specific regulations (ePrescription and sickness certificates) are being consistently used by the facilities - meaning that these processed are fully digital - while e.g. the referral module is not. Changes in the legal framework are currently being prepared to ensure that healthcare providers will consistently use all available modules in the e-Health system and provide complete data in the system, and to facilitate that only electronic records are kept. Amendments are also planned to allow the NHS to implement financial deductions in case the referral module in the e-Health system is not used, a measure	2,5

Data infrastructure and management

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		that currently already is in place for the patient discharge reports. LDHC involves representatives from medical professional associations in the development of use cases for the e-Health system. Patient organizations were involved in the development of the updated e-Health system-app, through which they can more easily access (part of) their personal health data. The patient organizations however indicated that this function for accessing data is not fully developed yet and that people are not using it. A Digital Health Council is in place involving healthcare professionals, state and municipal institutions, ICT experts, and patient organisations in the development of an open, user-centred digital health ecosystem. Patient organizations however indicated that they do not experience this Council to be a platform for genuine engagement. While registration of births has already been largely digitalized, registration of deaths and cause-of-death information still is completely paper-based. A project is ongoing to also digitalize the registration of deaths and causes of death. This should be ready by 2029. An electronic system for infectious disease surveillance is in place, but, except for COVID-19, this is not based on real-time data (see item Data sources_3). The Emergency Medical Services have developed their own comprehensive digital information system (EMY). 13 hospitals (out of the 42 that have an agreement with NHS) are currently integrated with Emy.	

Data infrastructure and management

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Data infrastructure _2	<i>Interoperability:</i> commonly agreed interoperability standards for the HIS and wider information systems are structurally implemented. An office or agency is in charge of defining interoperability standards. A UPIN is issued at birth for each citizen, and this is used structurally across government services, including health services. Opportunities are available to link data sources at the subject level.	Technical requirements for linking private vendor EMR systems with the central e-Health system are available on the website of the LDHC. These requirements are stipulated in the service agreements that LDHC has with the health care facilities. LDHC also makes available an application programming interface (API) for data extraction from the e-Health system, although this seemed not to be known in all the healthcare facilities visited during the assessment. There is a generic lack of knowledge in the health facilities as well as among private vendors on international technical and semantic interoperability standards. Provided that sufficient budget is available on this, LDHC plans to work on a proof of-concept of the Health Level-7 (HL7)/Fast Healthcare Interoperability Resources (FHIR) core; building capacity on HL7 FHIR and openEHR within LDHC and the industry; and adopting Logical Observation Identifiers Names and Codes (LOINC), Unified Code for Units of Measure (UCUM), and Systematized Nomenclature of Medicine – Clinical Terms (SNOMEDCT), the latter together with CDPC. Due to the current lack of use of harmonised standards, some data is only available in unstructured format (for example, LOINC is not used by all labs and lab results often only are available in PDF format). A unique personal identification number is in place that is consistently used across governmental databases. There is a secure processing environment for researchers to analyse datasets that have been linked by the CSB.	2,5

Data infrastructure and management			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Data infrastructure _3	<i>Metadata and quality control:</i> common standards are structurally used for metadata for official (health) statistics, and these are aligned with international metadata standards. Structural quality checks are performed according to well documented protocols on the major HIS data sources (e.g. automated checks in the EHR system, manual checks, audits).	CSB used the SIMS metadata standard, which is aligned with Eurostat requirements. NHS uses basic and logic checks on the information provided from the facilities and sends data back for correction when needed. CDPC also performs quality control, using data validation rules, methodological guidelines, and compliance checks. Data are reviewed to ensure internal consistency, coding accuracy, and completeness. If inconsistencies are identified, feedback is provided to data providers to correct or update the information. Regular audits are not performed. In the current situation with a lot of manual data processing still, data quality checks are very resource intensive.	3,5
Data infrastructure _4	<i>Accessibility and usability of data sources for secondary purposes:</i> publicly funded data sources are publicly available and published as open data. Other (semi-public) data sources can be used for secondary purposes, either free of charge or for a reasonable fee covering the costs needed to produce tailored data extractions. An integrated data warehouse is operated at the national level, containing data from all relevant HIS data sources. If a central data warehouse is not in place, a data exchange platform for safe and efficient exchange between (semi-)governmental organizations is in place.	Data are published in the official statistics portal in accordance with the current Regulation on the Official Statistics Programme or in more detail, where possible and useful for data users. There also is an online Health Statistics Database. From both portals, custom datasets can be selected and downloaded in Excel and Comma-Separated Values (CSV) format. In addition, there is a database (called 'monitoring system') with data from CDPC, NHS, LDHC, the Emergency Medical Service and the Health Inspectorate linked at the subject level. Researchers can submit requests for extractions of this database. A data warehouse is currently being developed with EU Recovery and Resilience Facility (RFF) funds, which should become operational in spring 2026. Initially this will contain six datasets from the eHealth system/NHS payment system. There will be a strictly regulated access system, with some	3

Data infrastructure and management			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		parts of the data being public. A national platform for the exchange of data between government sectors is in place - Data distribution and management platform. Patient organizations indicate that they experience difficulties accessing data from registries for research/advocacy purposes, and that they would like to be involved better in the development of (governance for) the registries. Also, they indicated that a platform for ethical discussions on the use of health data is lacking.	
Data infrastructure _5	<i>Legal framework:</i> there is a legal basis for the most important HIS data collections. Specific data standards (e.g. disaggregation levels, ICD-10 codes) are defined in the law. Criteria for data privacy, secondary processing, sharing of information, data linkage and storage are specified. The legal framework is workable and not too restrictive. Accessibility of essential data sources for the most important HIS stakeholders is regulated by law.	Latvia has a well-developed legal framework for the collection of health statistical information. The responsibilities of different institutions, such as the CSB, the CDPC and the NHS are clearly defined by the 2016 “Statistics Law” and the annual update of the “Regulations on the Programme of Official Statistics”. These regulations determine responsibilities for the preparation of statistical information and the conditions for users for obtaining health-related data. EU law including General Data Protection Regulation (GDPR) applies in Latvia. A new law on the secondary use of electronic health data currently is being developed, defining a central Health Data Access Body and grounds and processes for secondary use in accordance with the EHDS. The classifications for official statistics are defined in the “Regulations Regarding the List of Statistical Classifications and the Procedures for the Implementation, Maintenance and Publishing of the Statistical Classifications Included Therein”. The regulations contain: ICD, International Classification of Functioning, Disability and Health (ICF), Injury Database	3

Data infrastructure and management			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		Coding Manual. Data Dictionary (IDB), Classification of Health Care Functions, Classification of Health Care Providers, Classification of Health Care Financing Schemes. Issues mentioned during the interviews related to the legal framework and its practical implementation were the need for more consistent implementation of existing laws and regulations, the fact that it was felt that the GDPR was sometimes used as a reason to block certain activities, and limited awareness of data protection and how to handle sensitive personal data among the health workforce.	
Data infrastructure _6	<i>Resources:</i> HIS stakeholders have adequate tools for data collection (e.g. database and data management software), and adequate manpower with limited staff turnover. HIS stakeholders have adequate capacity, i.e. staff with the right technical skills and expertise. Regular training is provided/funds are available for regular training.	Overall, available resources seem marginally sufficient. Specific shortages that were mentioned related to human resources (specifically for staff for analytics (including using Big Data) and IT staff) and available hardware. The underfunded public health infrastructure limits opportunities for system upgrades and technology adoption. Lack of server capacity, also with an eye on future AI applications, and lack of sufficient manpower with the right expertise for implementation of the forthcoming cybersecurity law are points of attention. Regarding training opportunities, the picture emerging from the interviews is mixed, with some experts being satisfied with the opportunities provided, while others feel that (continuous professional) training opportunities are insufficient, especially related to digital skills development.	2,5
		TOTAL	score (%)

Analysis			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Analysis_1	<i>Indicator sets:</i> a core set of policy-relevant health indicators has been selected transparently. The core set covers all main categories necessary for informing health policy – i.e. health status, demographics, (wider) health determinants (including indicators on poverty, employment, education, environment) and health systems.	Latvia's Public Health Strategy 2021-2027 includes a set of indicators for measuring progress linked to 20 policy goals, covering a wide array of topics. There are no specific targets related to reducing health inequalities or the wider determinants of health. In accordance with Regulation of Cabinet of Ministers "Procedures for the Public Participation in the Development Planning Process" (15.10.2024. Nr. 639), many different stakeholders were involved in the development of the Strategy and the indicators included. A pay-for-performance system based on a set of indicators is in place at the primary health care level. These indicators were selected based on advice from a working group composed of experts from the MoH, the NHS, GP's and patients' organisations. During the interviews, it appeared that GPs do not always feel that have sufficient control to steer for good indicator values (for example, because patients may seek part of their health care from different (private) providers). The MoH is working on developing a set of key performance indicators to improve healthcare quality. The planning is to start using these next year.	3
Analysis_2	<i>Indicator updates:</i> indicator values are regularly computed, analysed and publicly reported, according to an official publication schedule, including comprehensive metadata. The datasets used to calculate the core indicators are updated	Although the mid-term assessment report for the Public Health Strategy was due in November 2024, there have been delays due to lack of resources at the MoH ⁵ . Health statistics published by the CSB and CDPC are updated regularly (mostly	2,5

⁵ Update January 2026: The report was submitted to the State Chancellery (on 14.10.2025) for the adoption in the Cabinet of Ministers. However, it is not yet adopted by Cabinet of Ministers.

Analysis			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
	regularly, and the frequency of these updates is in line with policy needs.	annually). Publication calendars are available at the websites of both institutions.	
Analysis_3	<i>Comprehensiveness of analysis:</i> regular analysis of indicator values includes historical time trends, international comparisons and disaggregations according to relevant subnational entities (e.g. regions, municipalities). Periodic future projections are made for key indicators based on population projections and epidemiological trend data.	Data in the official statistics portal can be displayed as line charts. CDPC, next to their health statistics database, has a webpage with statistical and research data visualizations. This includes line charts, pie charts, column/bar charts, and some maps. International comparisons are not made available by the CDPC: they refer to the websites of international organizations for this. The CDPC reports at the regional and municipal level by means of dedicated profiles and dashboards. Some municipalities are actively asking for updates. Projections cannot be found online but these are made during the policy planning process and are published in policy planning documents and their monitoring reports.	3
Analysis_4	<i>Health inequalities:</i> regular analysis includes disaggregation of indicator values according to various dimensions of health inequalities, including gender, socioeconomic status, ethnicity and geographical differences.	On the CDPC website (Health statistics database), indicator breakdowns by region or by region and municipality, age, and gender can be found, depending on type of indicator. For some survey-based indicators breakdowns according to urban versus rural area and income quintile group are available. In the official statistics portal, there is a section with indicators on poverty and inequality based on EU-SILC, but this is not health-specific.	3

Analysis			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Analysis_5	<i>Alignment with international indicator sets:</i> indicators used in the country are aligned with international reporting frameworks, most importantly with the SDGs and the Impact Framework for WHO's GPW13. Collection methods for the data underlying the indicators are in line with international standards and recommendations. The country can fulfil all health information requests from international organizations. Experts and government representatives participate in international health information networks and projects.	Where applicable, definitions are aligned with Eurostat, Organisation for Economic Co-operation and Development (OECD), and WHO data delivery requirements. There is no regular reporting on Sustainable Development Goals (SDG) indicators as part of national monitoring efforts ⁶ . Almost all international data delivery requirements can be met, except for the fact that only head counts for health workforce can be provided and not full time equivalents (FTEs). Latvian experts actively participate in international networks and projects.	3
Analysis_6	<i>Resources:</i> HIS stakeholders have adequate tools for analysis (e.g. computers, servers, analysis software) and publication (e.g. module for interactive dashboard). HIS stakeholders have adequate manpower, with limited staff turnover and adequate capacity. A multidisciplinary team works on the publication of the core indicators. Regular training is provided/funds are available for regular training on analysis skills.	See item Data infrastructure _6. A lack of analytical capacity was mentioned by different stakeholders during the interviews.	2,5
		TOTAL	score (%)

⁶ Progress reports on SDG implementation have been submitted to the United Nations in 2018 and 2022, though. (See: [Implementation of the UN Sustainable Development Goals in Latvia | Cabinet of Ministers](#))

Health reporting			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Health reporting_1	<i>Health reports aimed at informing policy-making:</i> regular health reports are produced by the national public health agency or comparable institution, independent of the ministry of health. The reports integrate data and information from public health, health care and other relevant policy domains, and include options for action. Scientific standards and common transparency requirements are followed. Health reports are written in easy-to-read language, and include informative visualizations and key messages.	Health statistics are made available online by the CSB and CDPC, and the CDPC produces regular data and information products on infectious diseases, immunization and drug use prevalence, as well as regular reports on survey results and ad hoc thematic reports. However, a regular general population health report is not produced/commissioned by the MoH. Although ad hoc intersectoral monitoring and reporting activities do take place, no structural mechanism is in place. CDPC reports use a combination of graphs, tables, and explanatory texts. Options for action are sometimes included, but this is not a standard element of reports.	2,5
Health reporting_2	<i>Dissemination and communication:</i> regular health reports are publicly available. In the case of web-based applications, it is considered possible to download the visualizations and the data on which they are based. Tailored summaries/factsheets are available for different target audiences. Comprehensive communication and dissemination strategies are in place. User surveys are regularly, and website statistics are monitored and analysed regularly.	CDPC reports are available on the CDPC website. Tailored data sets can be downloaded from the official statistics portal and the online Health Statistics Database in Excel and CSV format. Some factsheets are available on the CDPC website, but no recent ones. Although user statistics are monitored, during the interviews there was no mentioning of user surveys or comprehensive communication strategies for new information products.	2,5
Health reporting_3	<i>Mechanisms for using health reports in the policy-making process:</i> a formal, public and transparent procedure for using health reports in the policy-making process is in place. Parliament is informed by the ministry of health when formal health reports are published. An intersectoral governmental body to discuss (how to use) the health reports is in place, and its decisions are formally and publicly reported. Health is a standard dimension in reports of other policy sectors.	There are examples of the use of health information to inform policy planning, but these are not part of a formal, public and transparent procedure for using health reports in the policy-making process. NHS uses health information for annual planning. There is however not enough budget to cover for all health care services needed according to these planning exercises. Data from the register of the Health Inspectorate on the health workforce are used for residency planning. The MoH occasionally uses publicly available online BI reports at the level of health care providers made by the NHS. The MoH	2,5

Health reporting			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		also uses reports from international organizations to see how Latvia is doing compared to other countries.	
Health reporting_4	<i>Use of health reports at the health care facility and provider level:</i> managers and medical staff use health reports regularly to monitor and improve performance. Such reports are discussed jointly (e.g. at the department or team level). There is an open attitude among health care staff towards measuring and monitoring performance. Health care staff feel safe to discuss (suboptimal) quality of care and performance. For these reports, indicators that are acknowledged by (international) peers as valid and useful are used. These include patient-reported outcomes and patient-reported experiences.	A mixed picture emerged from the interviews. In some facilities the local EMR system includes various standardized reports, while in others the local EMR systems do not support this, and Excel sheets are being used. Some doctors are interested in using this kind of information, but not all. Overall, there seems to be room to strengthen a data-driven culture in healthcare (also see item Knowledge translation_1). All clinical university hospitals and some regional and specialised hospitals are measuring patient experience using a platform developed for sending patients questionnaires and retrieving data.	2,5
Health reporting_5	<i>Resources:</i> HIS stakeholders have access to adequate tools for producing health reports (e.g. quality criteria/toolkit, evidence resources) and publishing health reports (e.g. software for using interactive graphs and options for integrating videos in online reports). HIS stakeholders have adequate manpower with limited staff turnover. HIS stakeholders have adequate capacity. A multidisciplinary team works on producing the health reports. Regular training is provided/funds are available for regular training on reporting skills.	See item Data infrastructure _6. A lack of analytical capacity was mentioned by different stakeholders during the interviews.	2,5
		TOTAL	score (%)

Knowledge translation			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Knowledge translation_1	<i>Familiarity with information and knowledge products:</i> the regular information and knowledge products produced within the HIS and their publication schedules are well known by policy-makers, senior managers and other actors such as media representatives. Senior managers and policy-makers demand complete, timely, accurate, relevant and validated HIS information and know how to interpret and use it. Training or information courses on the products and their use are offered regularly.	The regular health statistics published by the CSB and CDPC are known by policymakers and other stakeholders such as municipalities. There is room still to improve a data-driven culture in the healthcare facilities, although it must be noted that the current lack of data use can partly be explained by the absence of BI modules and inaccessibility of data (see under Data infrastructure and management). Lack of knowledge on how to use data for quality assurance and performance improvement is another contributing factor. Information on publicly available data and how to use them for public health research is available at the CDPC website.	3
Knowledge translation_2	<i>Alignment with policy-makers' needs:</i> exchange and integrated knowledge translation approaches are applied to make sure that information and knowledge produced meet the needs of policy-makers and other relevant users. A rapid response team/mechanism is in place to respond quickly to ad hoc questions (e.g. when the ministry of health is looking for health information to answer questions from parliament).	Although ad hoc exchanges on information products take place (e.g., between the MoH and the CDPC), there are no regular and institutionalized mechanisms to ensure that information products meet policy makers needs. A procedure for providing rapid responses has been established at CDPC, ensuring recording of the request and informing concerned supervisors.	2,5
Knowledge translation_3	<i>Knowledge translation tools and mechanisms:</i> producers of information and knowledge products use tools that are specifically aimed at stimulating uptake of information and knowledge in policy-making, such as policy briefs and policy dialogues. A knowledge translation infrastructure is in place that represents clear objectives for action and incorporates elements of push, pull or exchange efforts. The applied knowledge translation tools and mechanisms are institutionalized and a structural element of the health policy-making process.	Policy brief- and policy dialogue-type products and activities are developed occasionally but not structurally. There is no institutionalized knowledge translation infrastructure.	2

Knowledge translation

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Knowledge translation_4	<i>Resources:</i> HIS stakeholders have adequate manpower for knowledge translation and adequate capacity. Staff have been trained in knowledge translation concepts, tools and skills and adequate budget is available for training to keep staff capacity up to date.	Stakeholders reported a lack of analytical manpower which also implies a lack of manpower for knowledge translation activities, to make sure that the outcomes of analyses are taken up in policy and practice. Nevertheless, some knowledge translation activities do take place, though (see above). There appears to be no dedicated training or budget for knowledge translation.	2
		TOTAL	score (%)

Governance and resources

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
Governance and resources_1	<i>HIS legislative framework:</i> legislation providing the legal and regulatory framework for the HIS exists, is up to date and is enforced. The legislation defines tasks related to population health monitoring, covering the whole policy cycle (problem definition, agenda setting, policy formulation, decision-making, policy implementation, policy evaluation). A legislative framework is in place for electronic information systems. National interoperability standards and other requirements are developed. Compliance, conformance and accreditation of electronic health information products and services are defined and implemented.	There is a comprehensive legislative framework. Important laws include: Medical Treatment Act, E-Health Cabinet Regulations, Public Health Strategy 2021-2027, Digital health strategy 2023-2029, Law on the rights of patients. Work on the creation of a national e-Health ecosystem including technical and semantic interoperability standards is ongoing. There also is a well-developed legal framework for the collection of statistical health information. The responsibilities of different institutions, such as the CSB, the CDPC and the NHS are clearly defined by the 2016 “Statistics Law” and the annual update of the “Regulations on the Programme of Official Statistics”. These regulations determine responsibilities for the preparation of statistical information and the conditions for users for obtaining health-related data.	3

Governance and resources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		Though several monitoring tasks are defined in the By-laws of the Centre for Disease Prevention and Control, the policy cycle and the role of health information therein (i.e., how the information collected should be used) as such is not included in the law. The Public Health Strategy mentions the use of knowledge as a basic value. Although the Law on statistics defines the responsibilities of different institutions, patient organizations indicated that for outsiders it is not always clear which institutions owns which database.	
Governance and resources_2	<i>HIS strategic plan</i> : a formal comprehensive HIS strategic plan is in place, either as a standalone strategy, or as a clearly discernible element of a wider health/health systems strategy. The HIS strategic plan defines an HIS vision and clear goals, and defines mechanisms for monitoring progress towards these goals. HIS stakeholders were involved in its development and are involved in its monitoring and evaluation. The HIS strategic plan includes aspects of electronic health information services, or a separate strategic plan/policy for electronic health information services exists.	A Digital Health Strategy is in place for the period 2023-2029. The Digital Health Strategy has been developed to implement task “5.12.8. Development of the Digital Health Strategy 2022–2027” included in the Public Health Strategy 2021–2027. The Strategy implementation period is set until 2029, as the primary source of investments for the Strategy are the EU Structural Funds for the 2021–2027 programming period which must be used by 31 December 2029. The Digital Health Strategy includes 8 performance indicators including baseline values and target values for 2024 and 2029. The Public Health Strategy includes several actions related to improving databases, electronic platforms, etc. An overarching HIS strategy however is not in place.	3
Governance and resources_3	<i>HIS coordination</i> : a formal multistakeholder coordination mechanism/body for the HIS is in place. The ministry of health is actively involved. The coordination mechanism has clear terms of reference. Meeting reports are formally established and made publicly available. The HIS coordination body has a full overview of health information needs and available health information.	A Digital Health Council is in place involving healthcare professionals, state and municipal institutions, ICT experts, and patient organisations in the development of an open, user-centred digital health ecosystem. Minutes of the council meetings are publicly available on the website, and the Council is chaired by the Deputy State Secretary for Digitalization and Change Management at the MoH. There are	3

Governance and resources			
Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		regular contacts between the different institutions (MoH, NHS, LDHC, CDPC) at the personal and unit level. However, no formal coordination structure for the wider HIS beyond digital health is in place.	
Governance and resources_4	<i>Monitoring HIS performance</i> : mechanisms for monitoring HIS performance are in place. Quality assurance procedures for the different elements that are evaluated are described (e.g. acceptability, data quality, flexibility, usability, simplicity, output). A routine monitoring and evaluation process is in place for monitoring performance of the EHR systems, looking at aspects such as functionality, stability, usability, efficacy and effectiveness, as well as completeness and quality of the data entered into the system. Outcomes of quality assessments are publicly reported.	No routine system is in place. Different facilities use different local EMR systems and have their own processes. The assessment highlighted issues with data quality and completeness (see Data collection). The LDHC, which was founded on 1 January 2025, has as one of its main tasks to further develop and guarantee quality of the central e-Health system. The MoH has established methodological centres to also support the improvement of data quality in certain clinical areas.	2,5
Governance and resources_5	<i>HIS financing</i> : the budgets and financing streams for the various entities and activities in the HIS are clear and transparent. The financing is sustainable and is not primarily based on third-party money/donor or project funds.	Budgets are transparent and general HIS tasks are financed from the public budget, though innovations and improvements in the digital health system are largely dependent on EU funds. Budgets for digital health at the facility level are tight and do not leave enough room for investments/innovation.	2,5
Governance and resources_6	<i>HIS ICT infrastructure</i> : adequate ICT infrastructure (e.g. computers, internet access, servers) and adequate ICT support are in place at the national level, at relevant subnational levels and at the hospital/provider level. People working in the various institutions with a role in the HIS (e.g. ministry of health, public health institute, statistical office, health care facilities) have adequate ICT skills and access to training if needed.	Available resources in general seem marginally sufficient, although interviewees indicated shortage of IT staff, hardware, and server capacity. Monitoring of digital health skills among the health workforce and the population does not take place. Insufficient digital skills among patients/citizens as well as among the health workforce was a recurrent theme throughout the interviews - although to some extent this was deemed a generational issue. For the	2,5

Governance and resources

Topic	Description of the situation in an HIS with full maturity	Description of the current situation in the country	Country score
		population, not only a lack of digital skills, but a lack of general health literacy was mentioned as a problem, too.	
		TOTAL	score (%)

Shortened data governance module

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
Health data governance - general aspects				
HDG-1	Is there a national/regional health data governance or e-Health responsible body in place?	(1) Which ministry or other public body is responsible for conceptualizing and implementing health data governance?	(1) The country/region has nominated an institution, either at the ministerial level or at a national/regional institute of public health to lead on the health governance framework. It might be equally acceptable if a specific body or committee for health data governance has been tasked with leading the initiative.	The Ministry of Smart Administration and Regional Development provides the umbrella for digital transformation and related data governance. The MoH defines the complementary regulatory framework specific for health, especially regarding data interoperability and secondary data use.
		(2) Is there a national/regional institution in place that provides guidance on data protection and IT security regarding health data?	(2) The minimum expectation would be to have in place a national or regional data protection authority providing guidance on the protection of health data and on the necessary IT security measures. A more advanced system should include a specific body that advises on IT security,	A national data protection authority is in place (Data State Inspectorate of the Republic of Latvia). AI market Surveillance function (medical devices) has been assigned to the Health Inspectorate. Interviewees indicated that the fact that responsibilities related to data protection and compliance with the GDPR have been divided over two different institutions may lead to unclarities in practice, as it may be unclear which institution is mandated to provide guidance, e.g., on ethical

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
			cybersecurity and critical infrastructure aspects.	questions. The ministry of defence is responsible for cybersecurity.
HDG-2	Are the building blocks of a good health data governance implemented?	(1) Is there a central body responsible for health data standards, namely, are the precise criteria, specifications and rules for the definition, creation, storage and usage of health data defined?	(1) A central body has been identified and given the mandate to define data metrics, standard and quality criteria.	Related to interoperability standards, the LDHC is responsible for the technical standards and classifications used in the e-Health system, and the CDPC is responsible for the semantic standards. The two institutions collaborate when it comes to the implementation of interoperability standards. Related to quality criteria, the different institutions are responsible for the quality of the data in the systems that they operate – there is no overarching oversight or guidance for data quality control.
		(2) Did the country/region implement high-level and/or detailed rules that all health institutions utilize to manage their data assets, including enforcing authentication and access rights to data and compliance with laws and regulations?	(2) A set of compliance rules has been established that guides the organizational and technical management of health data assets. The rules specifically steer the access to data, ensuring that the right people have access to the right data, and that any access beyond a need to know is avoided.	Different laws and regulations that govern data access are in place, see above in the core module. In addition to the laws mentioned there, there is the Law on the Rights of Patients, which regulates the patient's right to information, access to his/her data, and determines how information may be shared with third parties. Who can assess what in the national e-Health system is well regulated and defined. Logs are kept and these are regularly audited. Interviewees expressed a need for more consistent implementation of the existing regulations, rather than developing more detailed regulation. As an example, the cancer registry was mentioned, where, despite appropriate regulation being in place, there are still considerable issues with the data. The MoH has established the methodological centers, hoping to stimulate better data quality through a positive approach and

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
				collaboration, rather than through punitive measures.
		(3) Is there a national inventory/health data inventory with respect to the storage, accessibility, risks and data values of health data in the public and private sector?	(3) The country has a well-defined established inventory of health data assets, or, in other words, the public health system is aware of its data assets and has created a catalogue of all relevant data sets that can be utilized for public policy-making and public health systems management.	The Ministry of Smart Administration and Regional Development is operating a central data catalogue. All EU-funded projects are required to consult with this Ministry on adding any new data sets to the catalogue. Under the EHDS, there will also be a requirement to set up a central health metadata catalogue.
HDG-3	Is there appropriate risk management in relation to the health data governance framework?	(1) Is there a risk assessment and reporting structure in place with respect to the governance risks of health data? If so, have standardized metrics for the assessment and reporting of risks been implemented?	(1) An important element of data governance is the assessment and mitigation of governance risks. Based on standard risk management methodologies, the country has implemented a risk monitoring and risk management process regarding risks associated with the governance of health data. The process is formalized and rolled out through all public institutions involved in the governance of health data.	LDHC has developed and is currently coordinating a risk assessment and reporting framework for the e-Health system. This is work in progress. Also, for the local EMR systems that are linked to the e-health system regulation on security is in place. For digitalization projects moving into regular operations, risk assessment and security requirements that need to be met are in place. However, for other existing EMRs and other digital information systems that are not linked to the e-Health system, there seems to be a gap in regulation.

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
HDG-4	Is there a technical framework in place for a good health data governance?	(1) Are there risk-appropriate technical standards for the protection of health data in place? Examples could be encryption of data at rest and in transit, and well-defined identity and access management. If so, are these standards provided by a national body on IT security/cybersecurity?	(1) Technical standards regarding the handling, processing, storage and destruction of health data exist. The guidance is provided by a specialized institution, such as a national data protection authority or a specific body for IT security. The guidance builds on international best practices, for example, the International Organization for Standardization standards or guidance provided by the United States' National Institute of Standards and Technology or the European Union Agency for Cybersecurity.	Regulation of the Cabinet of Ministers No 134 on a unified health information system defines how data can be processed in the e-Health system. LDHC has published the main framework for the e-Health architecture including main standards and principles. This is aligned with EU acts. Stakeholders are not yet always convinced of the added value of using international standards, which will also improve the possibilities for cross-border data exchange. More awareness raising is needed here.
		(3) Is there a framework in place for the assessment of IT security compliance, for example, and an IT audit programme? Is there a specific national/regional institution that conducts independent audits on the governance of health data security?	(3) The country has established a framework for the assessment and auditing of the compliance with IT security standards and policies. The country has required larger health institutions to establish and maintain an IT audit programme that independently assesses compliance. A national or regional institution for IT security or cybersecurity is established, equipped with the right and the means to conduct audits at institutions involved in the governance of health data.	While minimum cybersecurity requirements that are applicable to part of the medical treatment facilities are defined in the National Cybersecurity Law, no specific framework for auditing compliance is in place. Whether and how it happens (internally or externally) now depends on the institution/facility. It is not in the mandate of LDHC to perform such audits in the health facilities.
Compliance with data protection as an element of good health data governance				

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
HDG-5	Is the national/regional health data governance fully compliant with applicable data protection laws and standards?	(1) Are there specific guardrails for the legal basis for the processing of personal data for (public) health purposes? Is such processing primarily based on the public task of health institutions, the consent of the data subject or a preponderant legitimate interest?	(1) The country has developed a conceptual understanding of the legal basis for the processing of data in the health data governance domain. The data processing may be based on the specific legislation, or it may be based on the public task of health and public health institutions. Ideally, a country would avoid processing data based on the informed consent of data subjects, as such consent may be revoked or denied, putting data consistency and quality at risk.	Health data processing for secondary purposes is based on specific legislation, defining for which purposes health data may be processed (see above under Core module).
		(2) Is there a legal framework in place for secondary use of personal health data, for example, use of health data for research purposes or statistics? This is particularly relevant for personal health data from the medical setting (hospitals, polyclinics, general practice. etc.) for public health purposes and research.	(2) The processing of health data for research or public health reporting often requires secondary use of such data, as data may originally stem from health care provision or other sources. The data protection law of the country provides clear and concise guidance on such secondary use of personal data and spells out the documentation requirements for such use.	Prevailing relevant EU legislation applies in Latvia, and forthcoming implementing acts for the EHDS will also have substantial influence here. In general, a move is ongoing in the country to make public data more easily accessible (for example, the principle of entering the data only once, which is being implemented by the ministry of Smart Administration and Regional Development, and the new law by the President on “Amendment to the Law on the Structure of State Administration”). Researchers frequently ask access to health data. At present, a researcher is permitted to use identified patient data for research purposes only after obtaining the appropriate authorization issued by the CDPC, in accordance with Regulation of Cabinet of Ministers “The procedure for granting permission to use patient data in a specific research study” (04.08.2015. No. 446) (Also see item HDG-8.) While

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
				a regulatory framework is in place, what is missing in practice is a culture of data sharing and seeing health data as a common good. Interviewees mentioned examples in which medical doctors who wanted to switch their local EMR faced problems because the private vendor of their current system refused to make the data in the system available/interoperable with the new system, as they considered themselves to be the owner of the data.
HDG-6	Is data privacy institutionalized with health institutions and across competent authorities?	(1) Are there institutional data protection officers or data protection committees in place that provide independent oversight over an institution?	(1) Institutional data protection officers are established in all relevant institutions (for example, the institution has more than 10 employees processing personal data), and in particular, all public institutions have a data protection officer in place. Alternatively, the function of the data protection officer is allocated to a specific committee that acts as a data protection officer and that is sufficiently independent to perform this task.	Based on GDPR, all health facilities need to have a data protection officer. Based on national cybersecurity law, a cybersecurity officer needs to be present as well. These need to be two different persons. While data protection officers can be shared between institutions, or this function can be outsourced, for cybersecurity officers this is not possible to ensure independence. A bottleneck in practice can be that the GDPR is used to block certain data access requests – the need for consent is then used as a reason for refusal, while there is a legal basis for data processing without consent. It is difficult to attract cybersecurity officers, because of high competing salaries. The state has invested a lot in training opportunities to make it attractive for people. But still the situation is challenging. Interviewees indicated that an additional factor contributing to the difficulty to find cybersecurity staff is that some people have the idea that health data processing is complicated and messy.

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
		(2) Are there enforcement mechanisms in place, either enforcement through independent data protection authorities, and/or a direct enforcement/legal redress through NGOs or data subjects?	(2) Compliance with the applicable data protection laws and the subsequent regulatory framework is enforced by the data protection authority. In addition, data subjects can directly enforce their rights, both via complaints to the institution (as a data controller) or by seeking legal redress via the data protection authority or a court. Ideally, NGOs have the right to launch complaints and can enforce the rights of data subjects by seeking legal redress in the court system.	The National Data Protection Authority has indicated that governance of access to the data needs to be improved at the facility level, and that they will be stricter in their enforcement. They have issued several related fines recently already. Next to fines at the organizational level (both for public and private institutions), internal administrative fines can also be applied at the level of civil servants. The punitive measures are stipulated well in the law. There are mandatory audits within the whole public sector under the auspices of the Ministry of Finance.
HDG-7	Are there initiatives in place regarding the accuracy and quality of health data?	(1) Have policies and procedures been established in the health and public health sector to ensure the continuity of data services in the event of a data breach, loss or other disaster (this includes a disaster recovery plan or business continuity plan)?	(1) The country has defined and implemented a national/regional disaster recovery plan or business continuity plan. The plan adequately addresses the main risks to health data and stipulates measures and procedures to restore data processing capabilities as quickly as possible. The plan looks specifically at the integrity and availability of data.	Hospitals have regular trainings on disaster recoveries, based on a legal act. Clinical university hospitals and regional hospitals are generally better trained than local hospitals because they are a more critical part of infrastructure. The fact that these trainings go beyond the evacuation of patients and also include safeguarding data is quite a recent development, however, so more work and time is needed to make disaster preparedness a systemic element of health facilities' operations.
Health data as an asset				

Item	Question	Probing question	Expectations in a fully matured HIS	Description of the current situation in the country
HDG-8	How broadly are health data shared?	(1) Are health data shared, even in a restricted manner, with commercial entities such as private insurance companies, pharmaceutical companies, medical device companies, start-ups in the health sector or start-up incubators?	(1) The Member State has developed a policy and framework for sharing data with private commercial entities. Such sharing is restricted – for example, only aggregated or fully deidentified information is shared. The government controls and audits the use of such data by private entities, for example, by exercising control via data protection authorities or audit units.	A sandbox has recently been established by the National Artificial Intelligence Centre, to stimulate innovation. There is a legal basis for the Centre to grant exemptions to data processing restrictions, allowing data sets to be merged in a safe environment operated by the Centre. Health is one of the priority areas. An issue that is hampering innovation in practice is that vendor locks sometimes occur: the dependency on current systems/vendors then is too large to switch/innovate.

5. Policy considerations for HIS improvement

In table 3 below, the policy considerations to the MoH based on the findings of the assessment are provided, including a timeframe for implementation. In this way the table can serve as the starting point for a more elaborate roadmap for HIS strengthening. Short-term means that the suggested action can be implementable within one year, medium term means implementable within one to two years, and long-term means that implementation is expected to take more than two years. Potential ways in which WHO could support with the implementation of these policy considerations are also indicated in the table. It is to be noted though that the execution of these WHO support activities will depend on available funding.

Table 3. Policy considerations for improving the national HIS including timeframe for implementation

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
1. Invest in the further digitalization of infectious disease surveillance	While an electronic surveillance system based on real-time data was developed for COVID-19, funds have been lacking to expand this to other infectious diseases. As a consequence, surveillance now takes places through a combination of paper forms, email and an e-notification form, resulting in a lot of manual data processing, which leads to delays and mistakes. As also confirmed by a recent ECDC assessment, there is an urgent need to strengthen the national surveillance system to fulfil national responsibilities for surveillance and EU level requirements for the reporting of epidemiological data and signals. Therefore, it is suggested to: • Develop a budgeted plan for the further digitalization of the infectious disease surveillance system and secure the necessary budget for priority implementation.	Technical support for (setting priorities for) the development of a digitalization plan	Immediate – short term
2. Investigate signals of double reporting on provided health services by health facilities to NHS and CDPC	The CDPC collects data on health services. Information on state-reimbursed care is extracted from the NHS payment module in the national e-Health system, and information on non-state reimbursed care is provided to the CDPC by the health facilities separately. Although this approach is stipulated in the regulation, during the assessment several healthcare providers did not seem aware of this: they indicated that they also submitted the information on state-reimbursed care to the CDPC (and were asking why this was necessary as this information could be extracted from the e-Health system). Therefore, it is suggested to: • Investigate whether the issue here is only related to information that is indeed included in the e-Health system in a different format, and therefore (also) needs to be submitted to the CDPC in a different format, or whether actual double reporting is taking place. Depending on the outcome, launch an information campaign by MoH and CDPC to explain why some information that is available in the e-Health system needs to be submitted again in a different format and/or explain the current regulation and data submission requirements.	N.a.	Short term

⁷ Numbering of the policy considerations is only for easy identification and does not imply any ranking of importance.

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
3. Strengthen coordination to improve health information system governance	While more informal collaborations between the national institutions take place regularly and there are good interpersonal relationships, an institutionalized process for bringing together available data and potential analyses on the one hand and policy needs on the other hand is not in place. While a Digital Health Council is in place, formal coordination of stakeholders involved in the broader health information system beyond digital health is not taking place. There are only few intersectoral monitoring and reporting activities, which seems mostly of an ad hoc nature. Therefore, it is suggested to: • Establish a multisectoral and multistakeholder health information system coordination mechanism under the lead of the MoH, with a formal mandate and terms of reference. Make these documents and the meeting reports publicly available. • Ensure that the scope of this coordination mechanism at least includes structural discussions on what are the information needs from the policy side and how these could be best met with the available data and resources, and structural evaluations of information products. Making plans for how to overcome identified data gaps could also be part of this group's mandate. • Ensure coordination/alignment with the taskforces for improving data quality and for improving end-user involvement mentioned in policy considerations 3 and 4. It could be considered to make these two taskforces sub-structures of an overarching health information system coordination mechanism.	Facilitate exchange of modes for stakeholder engagement through the European Health Information Network (HIN)	Short-medium term
4. Establish central guidance for improvement of data quality in the e-Health system	Currently there are substantial issues with data coverage and data quality in the e-Health system. Actions to improve the situation have been initiated, including the strengthening of the regulatory framework and the establishment of methodological centers. However, responsibility for data quality is scattered across different institutions, and central guidance is lacking. Therefore, it is suggested to: • Establish a multistakeholder taskforce with appropriate mandate for developing binding data quality standards. The taskforce should include the MoH, CDPC, LDHC, CSB, methodological centers, medical associations/health workforce representatives, and potentially other relevant stakeholders.	Facilitate exchange of modes for stakeholder engagement through the HIN; technical guidance for data quality	Short-medium term

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
	• Have the taskforce develop a budgeted data quality improvement plan with measurable targets and support implementation of this plan. • Include a review of the current regulatory framework and changes in the regulation and/or its enforcement in the improvement plan when deemed necessary by the taskforce. • Facilitate data imputation for the disease registries integrated with the eHealth system by improving interoperability between local EMR systems and the central e-Health system.	mapping; capacity building on improving cause of death data	
5. Strengthen end-user involvement in the further development of the e-Health system and the wider health information system	LDHC involves representatives from medical professional associations in the development of use cases for the e-Health system. However, the assessment revealed that health professionals nevertheless experience considerable issues with working with the e-Health system in practice, most notable related to the system not being properly integrated with local EMR systems resulting in double work, user-unfriendliness of the system, and the system often being slow or down. Patient organizations were involved in the development of the updated e-Health system-app. They indicate however that they experience difficulties accessing data from registries for research purposes. A Digital Health Council is in place involving healthcare professionals, state and municipal institutions, ICT experts, and patient organisations in the development of an open, user-centred digital health ecosystem. Patient organizations however indicated that they do not experience this Council to be a platform for genuine engagement nor for ethical discussions on the use of health data. Therefore, it is suggested to: • Establish a multistakeholder taskforce with appropriate mandate for giving advice to the LDHC and the MoH on the further directions of the e-Health system and wider health information system from the perspective of the end-users. • This taskforce should include representatives of the main end-users of the e-Health system and other elements of the wider health information system, such as nurses, doctors, operators/administrators, patients, citizens, and researchers.	Facilitate exchange of modes for stakeholder engagement through the HIN	Short-medium term

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
	Ensure that this taskforce is properly involved in the development of e.g., new modules for the e-Health system, new or updated registries, and relevant regulation, including new regulation related to the EHDS.		
6. Improve access to data in the e-Health system and build capacity to stimulate a data-driven culture	There are no BI modules available in the e-Health system yet. A data warehouse is being developed with EU RFF funds, which should become operational in spring 2026. Some local EMR systems support the creation of BI reports, while others do not. Not all doctors or facility managers are equally interested in using such reports to improve their performance. This combination of lack of easy and flexible access to data for secondary use and limited awareness and knowledge on the added value of using data currently results in the absence of a data-driven culture in many healthcare facilities. At the same time, here is limited awareness of prevailing data protection legislation and how to handle sensitive personal data among the health workforce. Therefore, it is suggested to: - Invest in the development of flexible dashboards in the e-Health system meeting the needs of healthcare workers and facility managers. - Build capacity among healthcare workers and facility managers on the use of dashboards and data/indicators for improving performance. Ensure that this is not a one-off exercise but include mandatory modules in the curricula for nurses and doctors and provide life-long learning opportunities. - Also include data protection and the handling of sensitive personal data in these capacity building activities.	Capacity building on Data visualization, PowerBI (dashboard development) and Prompt Engineering; on using data for performance improvement	Short-medium term
7. Strengthen analytical capacity	A lack of analytical capacity was mentioned by several stakeholders during the assessment. As a consequence, available data are not optimally used and there is insufficient capacity for reaping the benefits of Big Data and AI. Therefore, it is recommended to: Make use of training opportunities under the EU-WHO/Euro partnership on strengthening health information systems and boosting data governance (until July 2027)⁸.	Capacity building on Data visualization, PowerBI (dashboard development) and Prompt	Short-medium term

⁸ Latvia already participated in the Big Data in Health Care training that was implemented under this partnership in June 2025.

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
	• Develop costed capacity-building plans for health information specialists at the MoH and main health information system institutions. • These plans can be informed by the outcomes of the discussions in the health information system coordination group mentioned in policy consideration 2.	Engineering; on Population Health Surveillance	
8. Strengthen the central governance of interoperability standards	Work on creating an ecosystem for interoperability is ongoing, yet this is still in early stages of development and there is substantial need for capacity building on why and how to use international technical and semantic interoperability standards still. While technical requirements for linking private vendor EMR systems with the central e-Health system are stipulated in the service agreements between LDHC and the health care facilities, there is a lack of awareness about this in the health facilities. Ensuring optimal interoperability between the central e-Health system and local EMR systems will be essential for improving data coverage in the e-Health system and lowering reporting burden for the health workforce. In addition, having clear interoperability requirements will be beneficial for stimulating innovation. Therefore, it is suggested to: • Ensure that the ecosystem framework is comprehensive, i.e., ensure it covers national technical, semantic, and organisational standards, ensuring aligned data formats, terminologies, and protocols for uninterrupted data exchange across all health care entities. • Legally mandate and endorse the use of internationally and EHDS-recognized standards and frameworks including APIs, HL7 FHIR and the new Reference Classifications of the WHO FIC including ICD-11, ICF and ICHI, for all health information systems (public and private), and develop a certification process for all digital health solutions to ensure compliance, compatibility and interoperability of digital solutions. Ensure there is a central entity with the appropriate mandate and budget to implement this. • Secure appropriate budget for implementing ICD-11, ensuring up-to-date and systematic recording, reporting, analysis, interpretation and comparison of mortality and morbidity data.	Technical guidance for ecosystem framework development; capacity building for ICD-11 implementation; capacity building on interoperability as part of the digitalization of HIS	Medium term

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
	Develop a capacity building programme on technical and semantic standards for health professionals, IT staff in health facilities, private vendors, and other relevant stakeholders, and secure the budget needed for LDHC, CDPC and potentially other training institutes to implement the plan.		
9. Strengthen digital skills among the health workforce and the population	Monitoring of digital health skills among the health workforce and the population does not take place. Insufficient digital skills among patients/citizens as well as among the health workforce as a barrier for digitalization was a recurrent theme throughout the interviews. Resistance to change among the health workforce was mentioned as another important barrier. Therefore, it is suggested to: - Implement regular monitoring of digital skills in the health workforce and the population using validated tools and with special attention for vulnerable groups, enabling an evidence-driven approach. - Investigate the factors behind the resistance to change and use them to develop training materials and awareness campaigns. - Roll out comprehensive digital literacy training programmes across health-care facilities to build confidence and ensure that all staff use digital tools effectively. - Invest in institutionalized development and integration of digital health literacy training into the academic curricula as well as institutionalized in-service capacity building/training.	Guidance on tools for measuring digital health literacy; capacity building on workforce development for the digitalization of HIS; facilitate the exchange of approaches and experiences via the HIN	Medium-long term
10. Ensure sufficient and sustainable funding for digitalization	The technical infrastructure seems marginally sufficient. At the same time, the underfunded public health infrastructure limits opportunities for system upgrades and technology adoption. To accommodate the use of Big Data and AI, investments in server capacity are needed. Shortage of sufficient IT staff and cybersecurity experts pose an additional threat for sustainable and safe digitalization efforts. Budgets do not leave enough room for innovation, particularly in the smaller health care facilities. Currently, innovations in digitalization are mostly dependent on EU funding. While of course it is positive that these opportunities are leveraged, the tight budgetary situation poses a threat for the sustainable	Facilitate the exchange of approaches and experiences via the HIN	Long term

High level policy considerations for national authorities ⁷	Specifications and potential actions for implementing the policy consideration	Potential WHO support	Time frame for implementation
	maintenance and further development of the thus developed tools. Therefore, it is recommended to: • Develop a realistic budget for further digitalization of the health information system, taking into account infrastructure/hardware, human capacity development, maintenance and updating of tools/software, and innovation.		

Annex 1. Assessment visit agenda

Time	Institution
Monday 13 October	
9:30 – 10:00	Briefing at Country Office <i>Address: Brivibas Street 72A, Riga</i>
	Walking from 2 nd floor to 3 rd floor
10:00 – 11:30	Ministry of Health <i>Address: Address: Brivibas Street 72A, Riga</i>
11:30 – 13:00	Lunch break & travel to next location
13:00 – 14:30	National Health Service <i>Address: Cēsu street 31, k-3, Riga</i>
14:30 – 15:00	Coffee break
15:00 – 17:00	Digital Health Center – eHealth system and Digital Health Strategy/ Data governance <i>Address: Cēsu street 31, k-3, Riga</i>
17:00- 17:20	Travel back to hotel
Tuesday 14 October	
8:30 - 9:00	Travel
9:00 – 10:00	CDPC (SPKC) – Infectious disease surveillance <i>Address: Dunties Street 22, k-5, Riga</i>
10:00 – 11:30	CDPC (SPKC) – Causes of death statistics, other population health data, health care data
11:30 – 11:45	Travel to next location
11:45 – 12:45	Emergency Medical Service (NMPD) – specialized medicine centre module <i>Address: Laktas Street 8, Rīga</i>
12:45 – 14:00	Travel to next location & Lunch break
14:00 – 15:00	E.Gorajas GP practice in Riga <i>Address: Brīvības street 68-9, Riga</i>
15:30 – 16:00	Travel to next location
16:00 – 17:00	Private clinic - VC4 <i>Address: Kr.Barona street 117</i>
17:00- 17:20	Travel back to hotel
Wednesday 15 October	
8:00 – 8:30	Travel to Hospital

Time	Institution
8:30 – 11:00	University Hospital (owner- state) - Paula Stradiņa Klīniskā Universitātes slimnīca (PSKUS) <i>Address: Pilsoņu street 13, Riga</i>
11:00 – 13:00	Travel to local health facility in region & lunch break
13:00 – 14:30	Jelgavas regional hospital (owner- municipality) <i>Address: Brīvības bulvāris 6, Jelgava</i>
14:30 – 15:30	Travel back to Riga
15:40 – 16:30	Meeting with Latvian Medical Association <i>Address: Brīvības Street 72A, Riga</i>
16:30 – 17:00	Meeting with Datamed (<i>largest private medical diagnostic IT system</i>) <i>Address: Brīvības Street 72A, Riga</i>
Thursday 16 October	
8:40 – 9:00	Walking to location
9:00 – 10:00	Central Statistical Bureau <i>Address: Lāčpleša street 1, Riga</i>
10:00 – 10:20	Walking to next location
10:30 – 11:30	Health inspectorate <i>Address: Brīvības Street 72A, Riga</i>
11:30 – 11:45	Coffee break
11:45 – 12:30	Meeting with patient organizations <i>Address: Brīvības Street 72A, Riga</i> NB: this meeting had to be cancelled due to unforeseen circumstances and took place online after the mission, on 3 December
Afternoon	Assessor prepares for multistakeholder meeting
Friday 17 October	
9:00 – 11:00	Multistakeholder meeting - debrief (hybrid format) <i>Address: Brīvības Street 72A, Riga</i>