8 Healthcare

Healthcare is a critical and highly regulated sector that combines service delivery, science, and public interest. It spans hospitals, clinics, laboratories, pharmaceutical supply chains, insurance bodies, and public health authorities. Across these domains, governance must address ethical considerations, professional standards, health outcomes, and financial sustainability. Healthcare systems differ globally but typically fall into three broad types:

- **Beveridge-style systems**, publicly funded and delivered (e.g., UK, Portugal).
- **Bismarck-style systems**, based on social insurance and mixed provision (e.g., Germany, France).
- **Market-based systems**, with private insurance and provision (e.g., US).

In Europe, most countries adopt mixed forms, combining universal coverage with private-sector involvement. Regardless of structure, all must ensure equitable access, patient safety, regulatory compliance, and resilience to systemic risks such as pandemics or cyberattacks.

8.1 Governance, Risk, and Compliance in Healthcare

The governance of healthcare involves clinical accountability, patient rights, financial oversight, and coordination between diverse actors. Risk management includes operational continuity, treatment errors, public health threats, and IT system failures. Compliance is tightly connected to privacy, medical licensing, procurement rules, and ethical conduct.

Information systems play a central role in both operations and strategy. These include electronic health records, diagnostic platforms, telehealth solutions, logistics, and administrative systems. Governance of IT in healthcare must address both the complexity of these environments and their exposure to sensitive data and mission-critical functions.

8.2 European Legal Framework and Digital Integration

The **European Union** has progressively strengthened the legal basis for health data governance. Key instruments include:

- The **General Data Protection Regulation (GDPR)**, which classifies health data as sensitive and subject to special protection.
- The **Directive on Patients' Rights in Cross-Border Healthcare**, which established the right of EU citizens to receive healthcare in other member states and set interoperability requirements.
- The proposal for a **European Health Data Space (EHDS)**, aiming to create a unified framework for accessing and sharing electronic health data across the EU.

The EHDS promotes two complementary objectives: improving continuity of care across borders (primary use) and enabling secondary use of health data for research, innovation, policy-making, and regulatory oversight. It builds on existing national eHealth infrastructures and introduces EU-wide rules for electronic health record systems, data access services, and interoperability.

This regulatory push has significant governance implications for public and private healthcare organisations, particularly in aligning IT architecture, patient consent models, and cybersecurity policies with evolving European standards.

8.3 Subdomains and Strategic Concerns

Healthcare encompasses a range of interconnected subdomains:

- **Primary and Community Care** – Localised, first-contact services, increasingly supported by e-prescriptions and teleconsultation.
- **Acute and Hospital Care** – High-dependency environments reliant on integrated clinical information systems and real-time monitoring.
- **Public Health and Epidemiology** – Requires cross-institutional data aggregation, often under central governance.
- **Pharmaceuticals and Devices** – Subject to strict safety regulation and lifecycle traceability, including digital compliance.
- **Health Insurance and Payers** – Use information systems to manage claims, verify coverage, and control costs.

Strategic issues include ageing populations, service fragmentation, clinical workforce shortages, and growing reliance on digital tools. Innovation must be balanced with privacy, ethics, and systemic resilience.

8.4 Portugal: Public and Private Dimensions

Portugal's health system is centred on the **Serviço Nacional de Saúde (SNS)**, a tax-funded public system offering universal coverage. Alongside it, a robust **private sector** provides diagnostics, elective care, and insurance-based services.

The **Serviços Partilhados do Ministério da Saúde (SPMS)** manages national digital health infrastructures, including electronic health records, e-prescriptions, and citizen portals.

Portugal aligns with European frameworks and actively participates in the development of the EHDS.

8.5 A Few Keywords…

- **Electronic Health Record (EHR)** – Structured digital record of clinical information.
- **Interoperability** – Seamless exchange of data across systems and borders.
- **eHealth** – Use of digital technologies in health services and systems.
- **GDPR** – EU regulation protecting personal and health data.
- **EHDS** – European Health Data Space, a framework for primary and secondary data use.
- **Clinical Governance** – Structures and responsibilities for maintaining care quality and safety.
- **Digital Health Maturity** – Degree to which a health system adopts and integrates digital tools.