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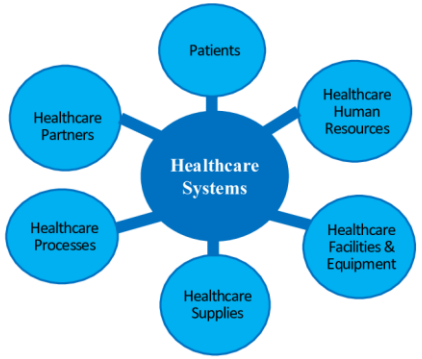
Healthcare organizations operate in environments of constant change. Technological, regulatory, and societal forces drive transformation. Effective change management is critical for system performance.

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Structure and function of modern healthcare system

Healthcare System Awareness

- System awareness requires understanding interdependencies between primary, secondary, and tertiary care.
  - Stakeholder alignment improves resilience during regulatory and technological change.
  - Leadership transparency fosters institutional trust and engagement.
  - Organizational learning mechanisms strengthen responsiveness to emerging risks.



https://www.researchgate.net/publication/372148157/figure/fig1/AS:11431281173193035@1688781444805/The-main-components-of-a-healthcare-system.png

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Defining a Health System

- A health system encompasses all organizations, institutions, and resources dedicated to improving population health.
  - It includes public health, clinical services, financing mechanisms, and governance structures.
  - Effective systems ensure equitable access and financial protection.
  - Integration across levels of care prevents duplication and service gaps.

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Goals of a Functional Health System

- Improve population health outcomes through evidence-based interventions.
  - Ensure equitable access regardless of socioeconomic status.
  - Enhance financial sustainability and cost-effectiveness.
  - Promote patient-centered care and service quality.

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Essential Building Blocks

- Service delivery ensures timely, safe, and high-quality care.
  - Health workforce capacity determines system responsiveness.
  - Information systems enable data-driven governance.
  - Financing and leadership provide stability and accountability.

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The Health Workforce

- Workforce planning aligns competencies with population health needs.
  - Continuous professional development supports digital literacy.
  - Interdisciplinary collaboration improves care coordination.
  - Retention strategies mitigate burnout and shortages.

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Organization of Healthcare Services

- Primary care functions as the entry point and coordination hub.
  - Specialized services provide advanced diagnostics and interventions.
  - Referral systems ensure continuity across care levels.
  - Integrated care models reduce fragmentation and inefficiencies.

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Public and Private Sector Roles

- Public sector ensures universal coverage and regulatory oversight.
  - Private providers contribute innovation and service capacity.
  - Public–private partnerships expand infrastructure investment.
  - Balanced governance prevents inequities and market failures.

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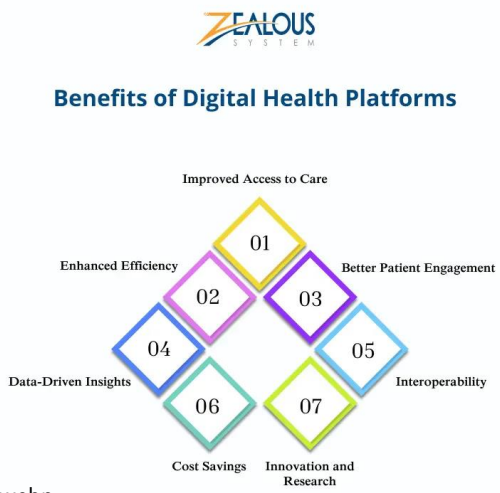
Digital Transformation in Health Systems

- Digital transformation integrates clinical, administrative, and financial data flows.
  - Interoperability standards enable cross-institutional collaboration.
  - Data analytics inform predictive and preventive strategies.
  - Transformation requires strong cybersecurity governance.

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Digital Health Platforms

- Platforms integrate EHRs, telemedicine, and patient portals.
  - Cloud-based architectures enhance scalability and flexibility.
  - APIs enable interoperability between heterogeneous systems.
  - User-centered design improves adoption and usability.



https://www.zealousys.com/wp-content/uploads/2024/07/Benefits-of-Digital-Health-Platforms.webp

Electronic Health Records (EHR) and Medical Records (EMR)

- EHRs centralize longitudinal patient data across providers.
  - EMRs serve as facility-specific clinical documentation tools.
  - Standardized coding improves clinical accuracy and reporting.
  - Secure data exchange enhances continuity of care.

Core Elements of EHR Systems

- Structured patient data management ensures completeness and accuracy.
  - Computerized provider order entry reduces medication errors.
  - Decision-support algorithms enhance diagnostic reliability.
  - Encryption protocols safeguard sensitive health information.

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Benefits of Digital Integration

- Real-time access to information improves clinical decisions.
  - Administrative automation reduces operational burden.
  - Integrated data improves cost transparency.
  - Population-level analytics support strategic planning.

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Digitalisation Challenges

- Cybersecurity threats expose sensitive patient data.
  - Limited interoperability restricts seamless information exchange.
  - High infrastructure costs challenge national scalability.
  - Workforce resistance may delay implementation.

Evaluating Health System Performance

- Performance evaluation measures effectiveness, equity, and safety.
  - Benchmarking identifies gaps across regions and institutions.
  - Outcome indicators assess population health improvement.
  - Continuous monitoring supports adaptive governance.

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Understanding Efficiency

- Technical efficiency minimizes input waste in service delivery.
  - Allocative efficiency ensures optimal resource distribution.
  - Cost-effectiveness analysis guides investment decisions.
  - Productivity metrics evaluate institutional performance.

Inputs and Outputs of Health Systems

- Inputs include human capital, infrastructure, and financial resources.
  - Outputs represent delivered services and interventions.
  - Health outcomes measure long-term system impact.
  - Balanced resource allocation improves sustainability.

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Consequences of Fragmented Care

- Fragmentation increases duplication of tests and procedures.
  - Care discontinuity raises risks for chronic patients.
  - Poor coordination leads to avoidable hospitalizations.
  - Integrated digital systems mitigate service gaps.

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Drivers of Fragmentation

- Overspecialization reduces holistic patient management.
  - Organizational silos weaken communication channels.
  - Competition for resources limits collaboration.
  - Lack of shared digital tools hinders coordination.

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Interprofessional Collaboration

- Collaborative practice improves patient safety outcomes.
  - Clear role definitions reduce conflict and overlap.
  - Shared accountability strengthens team performance.
  - Communication training enhances mutual understanding.

Using Digital Tools for Collaboration

- Secure messaging platforms enable rapid information exchange.
  - Shared dashboards support coordinated decision-making.
  - Virtual multidisciplinary rounds enhance inclusivity.
  - Digital documentation improves transparency.

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Enhancing Healthcare Coordination

- Teleconsultations expand specialist access in remote areas.
  - Shared care plans ensure continuity across providers.
  - Automated alerts reduce treatment delays.
  - Integrated workflows improve multidisciplinary efficiency.

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Modern Health System Reform Priorities

- Strengthen workforce competencies in digital health.
  - Improve interoperability across regional systems.
  - Promote equity through inclusive digital access.
  - Invest in resilient infrastructure and governance.

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