CHI software

Episode 3: Overcoming Challenges and Achieving Outcomes with Healthcare Technology

Future-Proofing Healthcare:

A Strategic Guide for Success in the Age of AI

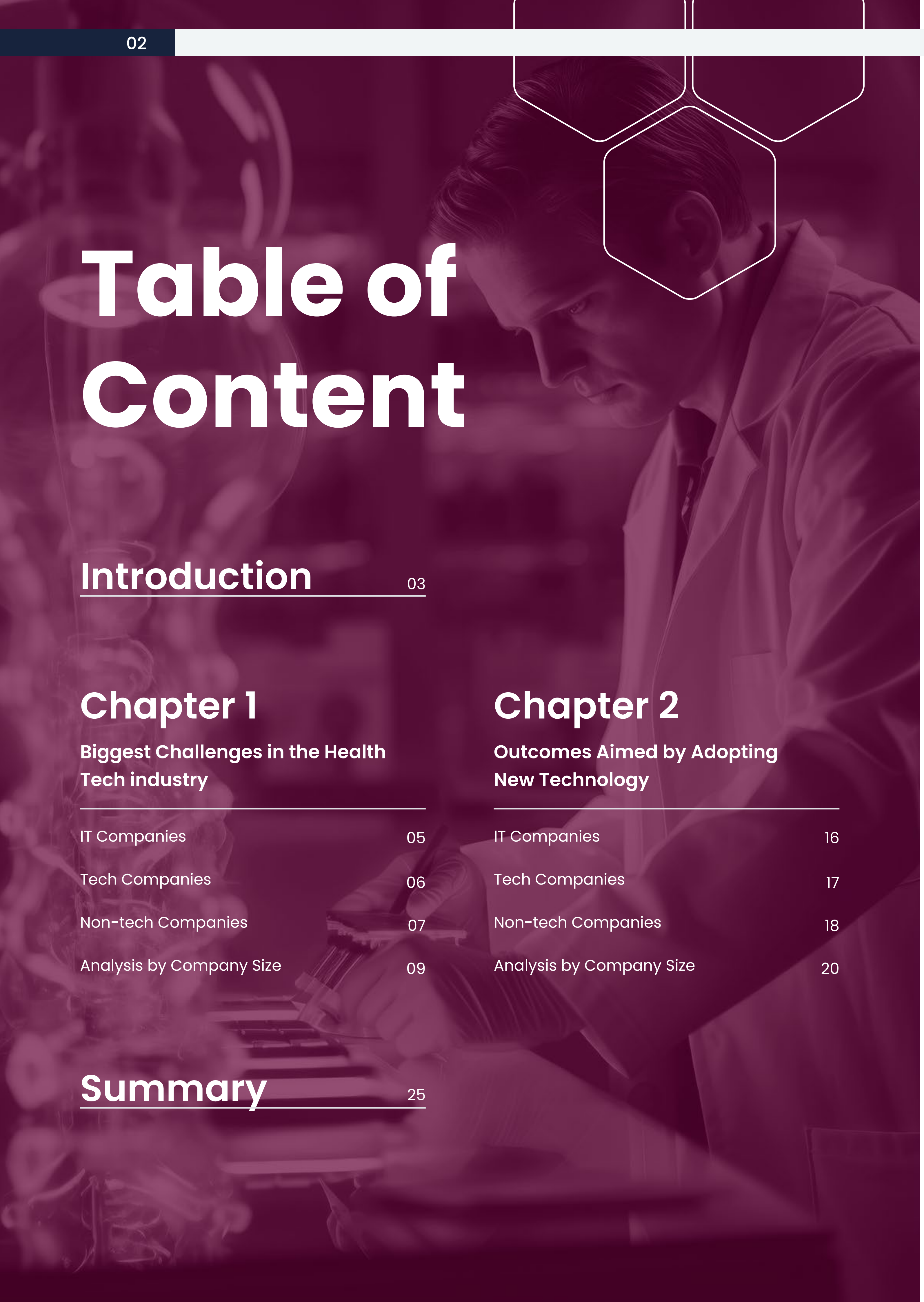


Table of Content

Welcome to Episode 3 of «Future-Proofing Healthcare» brought to you by CHI Software.

In this episode, we delve into the challenges and desired outcomes that healthcare organizations face when adopting new technology solutions. Our analysis is based on insights from 500 US healthcare decision-makers and illustrated through compelling case studies from our portfolio, demonstrating how these strategies work in real-world settings.

Company typology:

01 **IT organizations: Exclusively involved in healthcare software development.**

02 **Tech organizations:** Develop products or provide services requiring comprehensive technological solutions.

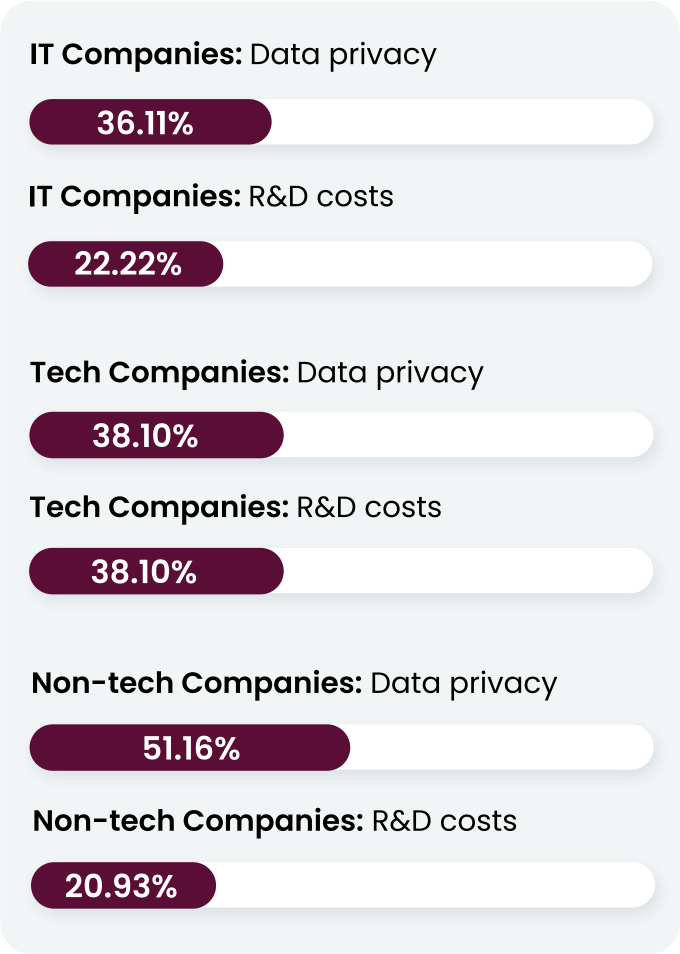
03 **Non-tech organizations:** Directly provide medical services. These are primarily healthcare institutions (hospitals, medical centers, clinics, etc. and several not-for-profit organizations.) Technologies and software in their work are auxiliary tools.

At CHI Software, we have partnered with numerous healthcare providers to help them navigate the complex landscape of technology adoption. Our extensive experience in developing and implementing AI-driven diagnostics, cloud-based healthcare platforms, and IoT-enabled patient monitoring systems ensures we provide valuable, actionable insights.

Chapter 1

Biggest Challenges in the Health Tech industry

Key Insights



Practical Recommendations

IT Companies

01

Strengthen Data Privacy Protocols:

- **What to Do:** Implement end-to-end encryption, conduct regular security audits, and use anonymization techniques.
- **Why:** Ensures data integrity and compliance with privacy regulations.
- **Example:** Regularly update encryption protocols to the latest standards to protect against evolving threats.

02

Engage Healthcare Professionals with Targeted Training Programs:

- **What to Do:** Develop training modules focused on new technologies and their benefits.
- **Why:** Increases adoption and effective use of new systems.
- **Example:** Offer certification programs for staff to become proficient in using new healthcare software.

Tech Companies

01

Focus on Securing Data through Encryption and Access Controls:

- **What to Do:** Employ advanced encryption techniques and stringent access controls.
- **Why:** Prevents unauthorized access and data breaches.
- **Example:** Use secure socket layer (SSL) certificates for all data transmissions.

02

Manage R&D Costs by Applying for Grants and Forming Strategic Partnerships:

- **What to Do:** Seek funding opportunities from government and private sectors, and collaborate with research institutions.
- **Why:** Reduces financial burden and fosters innovation.
- **Example:** Partner with universities for joint research projects to share costs and resources.

Non-tech Companies

01

Invest in Robust Data Security Infrastructure:

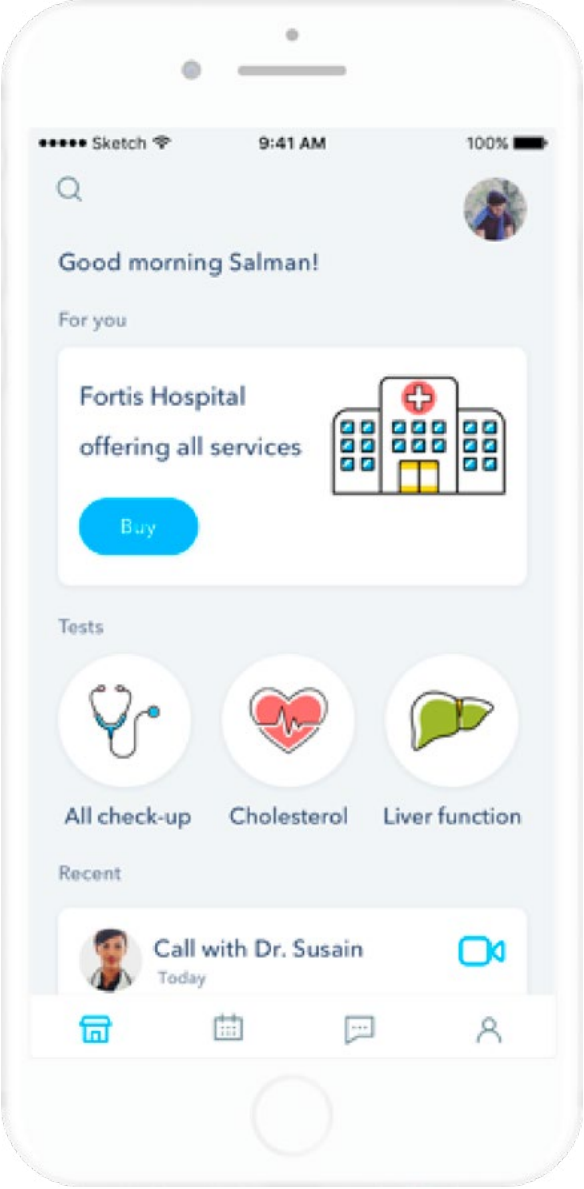
- **What to Do:** Upgrade to secure cloud storage solutions and use advanced firewalls and intrusion detection systems.
- **Why: E**nsures patient data is protected from cyber threats.
- **Example:** Use multi-layered security solutions combining hardware and software defenses.

02

Explore Collaborative R&D to Reduce Costs:

- **What to Do:** Partner with tech companies and research institutions to share the cost and resources of innovation.
- **Why:** Leverages external expertise and resources while minimizing costs.
- **Example:** Collaborate on grant applications with tech partners to secure funding for innovative projects.

Case Study Reference



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Good morning Salman!

For you

Fortis Hospital offering all services

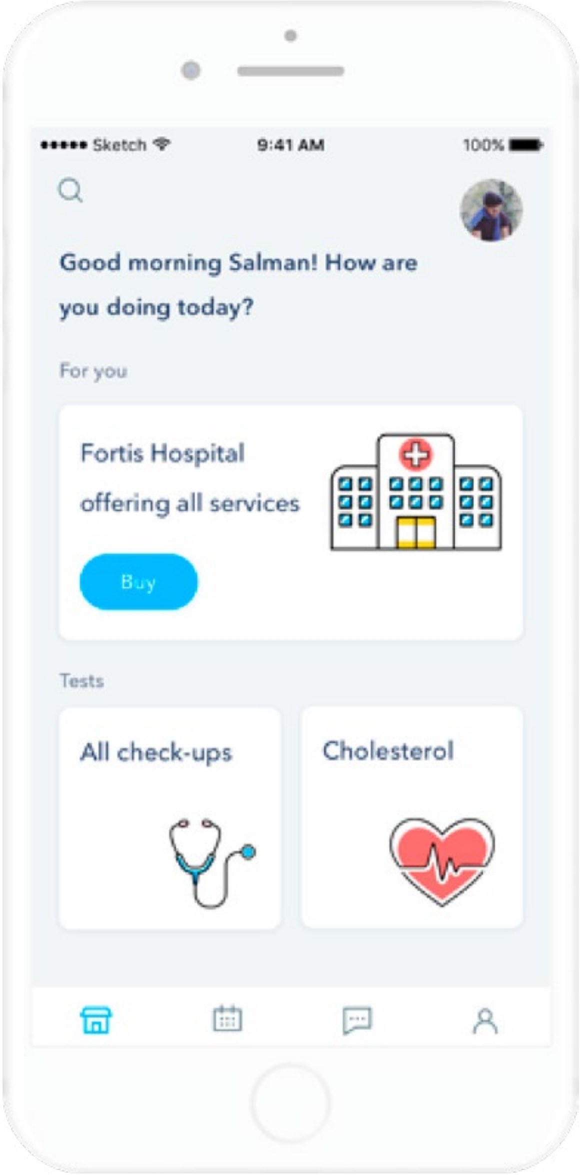
Buy

Tests

All check-up Cholesterol Liver function

Recent

Call with Dr. Susain
Today



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Good morning Salman! How are you doing today?

For you

Fortis Hospital offering all services

Buy

Tests

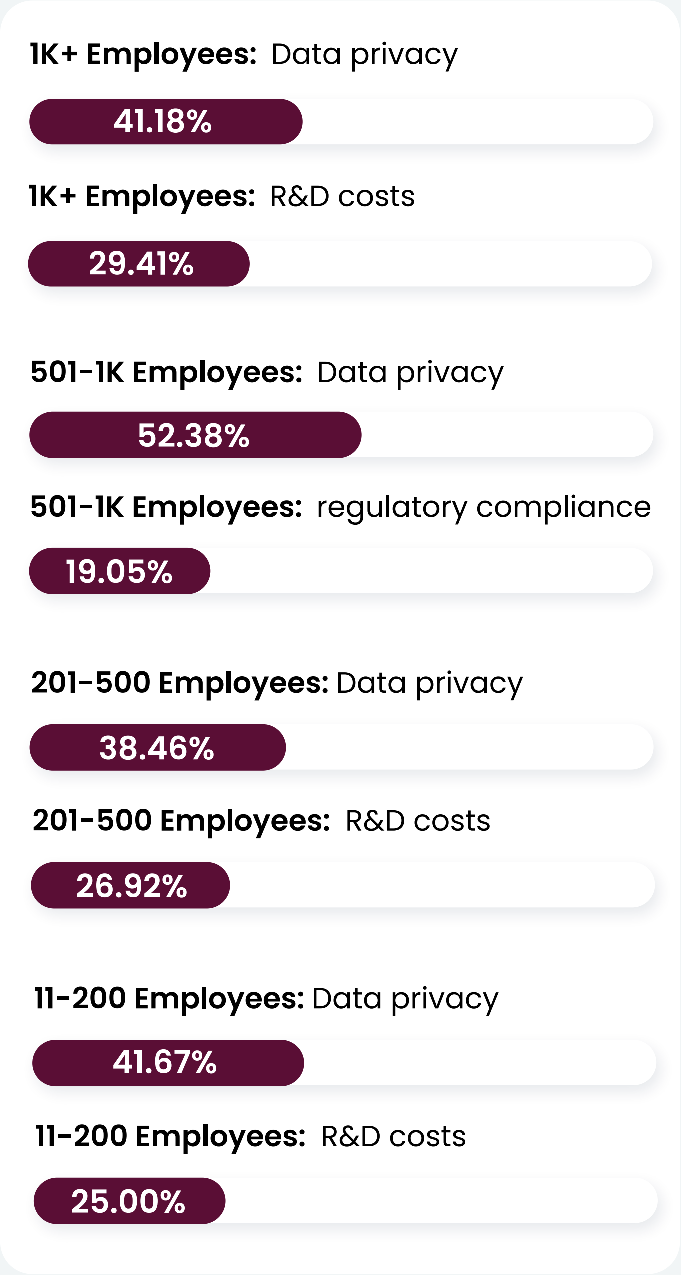
All check-ups Cholesterol

Case Study Reference:

Healthcare App for Seniors:

Highlights overcoming security challenges while developing a user-friendly app for elderly care.

Key Challenges by company size



Practical Recommendations

1K+ Employees

01

Data Privacy and Security Concerns:

What to Do: Implement multi-layered security protocols, including encryption, firewalls, and intrusion detection systems.

Why: Protects sensitive patient data from breaches and ensures compliance with regulations such as HIPAA.

Example: Regularly update security measures and conduct penetration testing to identify vulnerabilities.

02

High Costs of Research and Development:

What to Do: Seek external funding through grants and strategic partnerships to offset R&D costs.

Why: Enables continuous innovation without overburdening the budget.

Example: Collaborate with universities and research institutions for joint projects and shared resources.

501-1K Employees

01

Data Privacy and Security Concerns:

What to Do: Enhance cybersecurity measures with advanced encryption, access controls, and regular security audits.

Why: Ensures data integrity and compliance with industry standards.

Example: Use data anonymization techniques to protect patient identities in research data.

02

Regulatory Hurdles and Compliance Issues:

What to Do: Develop a robust compliance program that includes regular training and updates on regulatory changes.

Why: Reduces the risk of non-compliance and associated penalties.

Example: Implement compliance management software to track and manage regulatory requirements.

201-500 Employees

01

Data Privacy and Security Concerns:

What to Do: Utilize secure cloud storage solutions and implement strong data encryption practices.

Why: Protects against data breaches and ensures compliance with privacy laws.

Example: Use cloud-based EHR systems with end-to-end encryption to secure patient data.

02

High Costs of Research and Development:

What to Do: Apply for grants and subsidies, and engage in collaborative research projects to share costs.

Why: Helps manage R&D expenses while driving innovation.

Example: Partner with technology startups to leverage their innovative solutions while sharing R&D costs.

11-200 Employees

01

Data Privacy and Security Concerns:

What to Do: Establish comprehensive data protection policies and conduct regular staff training on data security best practices.

Why: Ensures that all employees are aware of and adhere to data security protocols.

Example: Conduct quarterly training sessions on data protection and privacy regulations.

02

High Costs of Research and Development:

What to Do: Focus on incremental innovation and cost-effective R&D strategies, such as outsourcing specific research tasks.

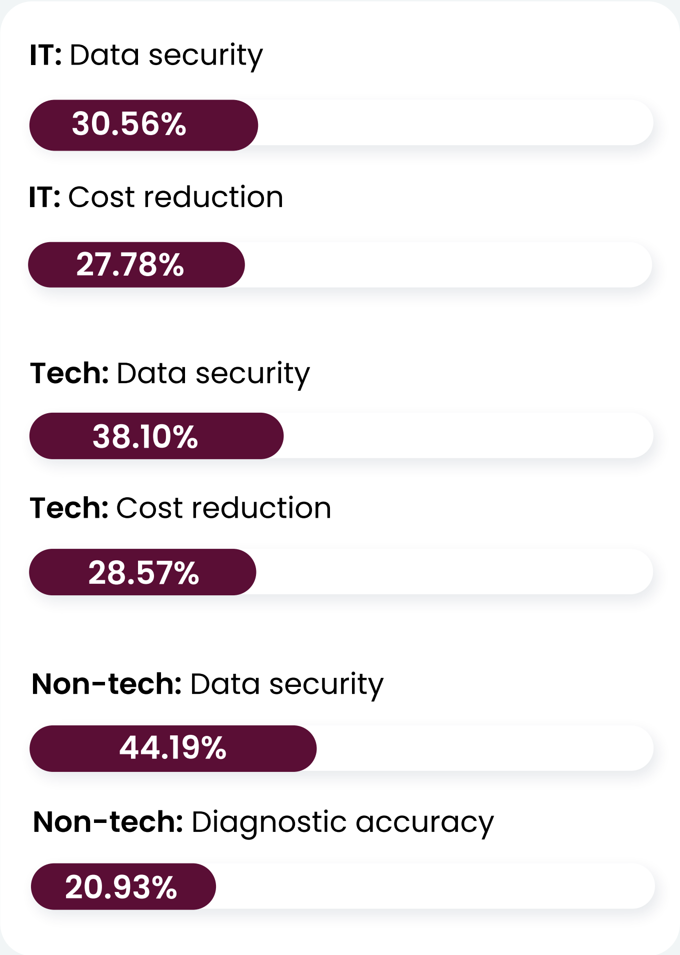
Why: Allows for continuous improvement without significant financial strain.

Example: Outsource parts of the R&D process to specialized firms to reduce costs and accelerate development.

Chapter 2

Outcomes Aimed by Adopting New Technology

Key Insights



Practical Recommendations

IT Companies

01

Implement Robust Cybersecurity Measures:

- **What to Do:** Invest in advanced encryption methods, multi-factor authentication, and regular security audits to protect patient data.
- **Why:** Ensuring data privacy builds trust with patients and meets regulatory requirements.
- **Example:** Use end-to-end encryption for data transmission and storage to prevent unauthorized access.

02

Automate Routine Tasks:

- **What to Do:** Utilize automation tools for administrative tasks like appointment scheduling, billing, and patient follow-ups.
- **Why:** Automation reduces human error, saves time, and cuts operational costs.
- **Example:** Implement robotic process automation (RPA) to handle repetitive tasks efficiently.

Tech Companies

01

Enhance Data Security with Advanced Encryption and Access Controls:

- **What to Do:** Deploy encryption technologies and access control mechanisms to secure sensitive data.
- **Why:** Protects against data breaches and ensures compliance with healthcare regulations.
- **Example:** Use role-based access control (RBAC) to limit data access to authorized personnel only.

02

Explore Automation Tools to Streamline Operations:

- **What to Do:** Integrate AI and machine learning for predictive analytics and process automation.
- **Why:** Improves operational efficiency and enables proactive decision-making.
- **Example:** Implement AI-driven analytics to predict patient admission rates and optimize resource allocation.

Non-tech Companies

01

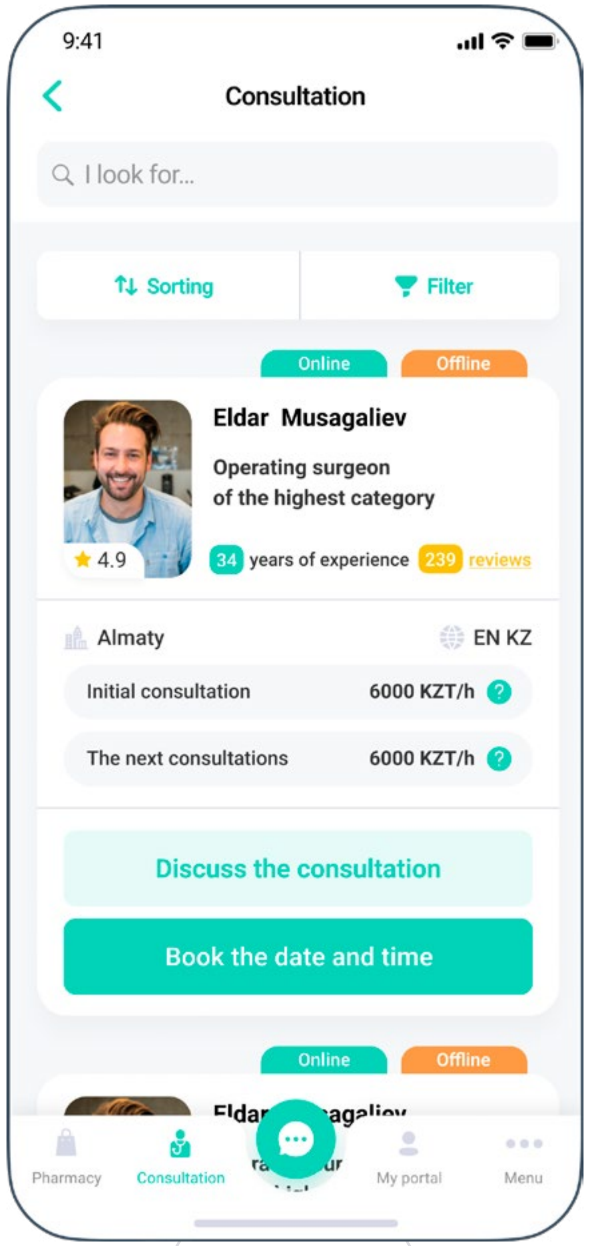
Focus on Technologies that Improve Diagnostic Capabilities:

- **What to Do:** Invest in AI-driven diagnostic tools and telemedicine platforms to enhance patient care.
- **Why:** Early detection and accurate diagnosis improve treatment outcomes.
- **Example:** Use AI-based imaging tools to analyze medical scans and detect anomalies early.

02

Ensure Robust Security Measures:

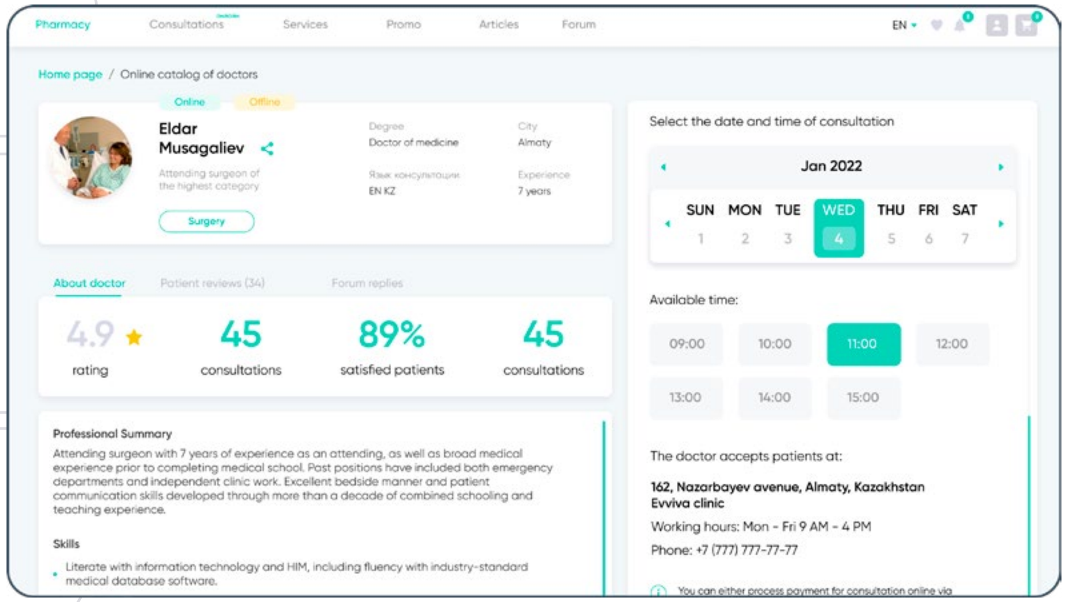
- **What to Do:** Establish comprehensive data security policies and conduct regular staff training.
- **Why:** Protects patient data from breaches and ensures compliance with HIPAA and other regulations.
- **Example:** Conduct regular security training sessions for staff to keep them updated on best practices.



Eldar Musagaliev
Operating surgeon of the highest category
4.9
34 years of experience 239 reviews
Almaty EN KZ
Initial consultation 6000 KZT/h
The next consultations 6000 KZT/h

Case Study Reference

Case Study Reference:
Healthcare Platform:
Demonstrates how a medium-sized IT company leveraged cloud solutions to enhance patient interaction and operational efficiency.



Home page / Online catalog of doctors

Online Offline

Eldar Musagaliev
Attending surgeon of the highest category

Degree: Doctor of medicine
City: Almaty
Язык консультации: EN KZ
Experience: 7 years

4.9 rating
45 consultations
89% satisfied patients
45 consultations

Professional Summary

Attending surgeon with 7 years of experience as an attending, as well as broad medical experience prior to completing medical school. Past positions have included both emergency departments and independent clinic work. Excellent bedside manner and patient communication skills developed through more than a decade of combined schooling and teaching experience.

Skills

- Literate with information technology and HIM, including fluency with industry-standard medical database software.

Select the date and time of consultation

Jan 2022

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7

Available time:

09:00 10:00 11:00 12:00
13:00 14:00 15:00

The doctor accepts patients at:

162, Nazarbayev avenue, Almaty, Kazakhstan
Evviva clinic

Working hours: Mon - Fri 9 AM - 4 PM

Phone: +7 (777) 777-77-77

You can either process payment for consultation online via

Key Insights

1K+ Employees: Diagnostic accuracy
29.41%

1K+ Employees: Data security
29.41%

501-1K Employees: Data security
42.86%

501-1K Employees: Diagnostic accuracy
14.29%

201-500 Employees: Data security
38.46%

201-500 Employees: Automation
34.62%

11-200 Employees: Data security
38.89%

11-200 Employees: Automation
19.44%

Practical Recommendations

1K+ Employees

01 Improved Diagnostic Accuracy and Early Detection:

Why: Enhances early detection of diseases, leading to better patient outcomes.

What to Do: Invest in AI-driven diagnostic tools and advanced imaging technologies.

Example: Implement machine learning algorithms that analyze patient data to predict and diagnose health issues early.

02 Increased Data Security and Privacy Measures:

Why: Protects sensitive patient data and complies with stringent regulatory requirements.

What to Do: Deploy multi-layered security frameworks, including firewalls, intrusion detection systems, and data encryption.

Example: Use advanced encryption standards (AES) and conduct regular security audits.

03 Cost Reduction through Automation:

Why: Reduces operational costs and improves efficiency.

What to Do: Automate administrative processes such as billing, scheduling, and inventory management.

Example: Implement robotic process automation (RPA) for repetitive tasks to free up staff for more critical functions.

501-1K Employees

01 **Increased Data Security and Privacy Measures:**

Why: Ensures data integrity and builds trust with patients.

What to Do: Strengthen cybersecurity policies, conduct employee training, and use encrypted communication channels.

Example: Implement a robust data governance framework that includes regular risk assessments.

02 **Improved Diagnostic Accuracy and Early Detection:**

Why: Enhances patient care and enables remote monitoring.

What to Do: Adopt AI-powered diagnostic tools and telehealth platforms.

Example: Use telehealth services to provide remote consultations and continuous monitoring of chronic conditions.

03 **Streamlined Healthcare Operations and Workflow:**

Why: Increases efficiency and reduces wait times.

What to Do: Implement integrated healthcare management systems that streamline patient flow and administrative tasks.

Example: Use electronic health records (EHR) systems to centralize patient information and improve coordination among healthcare providers.

201-500 Employees

01 **Increased Data Security and Privacy Measures:**

Why: Protects patient data from unauthorized access and breaches.

What to Do: Utilize secure cloud storage solutions and implement strict access controls.

Example: Use cloud-based EHR systems with role-based access controls to ensure only authorized personnel can access sensitive information.

02 **Cost Reduction through Automation:**

Why: Reduces operational costs and improves resource utilization.

What to Do: Automate routine tasks such as appointment reminders, patient follow-ups, and data entry.

Example: Implement an automated appointment reminder system to reduce no-shows and improve patient attendance.

03 **Improved Diagnostic Accuracy and Early Detection:**

Why: Enables early detection and continuous monitoring of patient health.

What to Do: Integrate AI-based diagnostic tools and remote monitoring systems.

Example: Use wearable devices that collect real-time health data and alert healthcare providers to potential issues.

11-200 Employees

01	**Increased Data Security and Privacy Measures:** **Why:** Ensures compliance with data protection regulations and safeguards patient information.	**What to Do:** Establish comprehensive data protection policies and use secure software solutions. **Example:** Conduct regular data security training for staff and use secure communication platforms for patient interactions.
02	**Cost Reduction through Automation:** **Why:** Reduces labor costs and enhances operational efficiency.	**What to Do:** Leverage affordable automation tools for administrative tasks. **Example:** Use automated billing systems to streamline the payment process and reduce errors.
03	**Streamlined Healthcare Operations and Workflow:** **Why:** Improves workflow efficiency and enhances patient experience.	**What to Do:** Implement practice management software that integrates scheduling, billing, and patient records. **Example:** Use an integrated practice management system to manage patient appointments, billing, and medical records from a single platform.

Summary

In the rapidly evolving healthcare industry, failing to adopt new technologies and address key challenges described above can have significant consequences. Without embracing AI-driven diagnostics and automation, companies risk falling behind in efficiency, leading to missed diagnoses, slower patient care, and increased operational costs. Inadequate data security measures could result in costly breaches, eroding patient trust and resulting in hefty fines for non-compliance with regulations like HIPAA.

For larger organizations, neglecting to manage R&D costs and compliance challenges could stifle innovation, limiting their ability to compete and grow. Smaller companies, already stretched thin, might face even greater difficulties, struggling to keep up with competitors who have invested in automation and data protection. This could lead to reduced patient satisfaction, lower revenue, and ultimately, the failure to scale or even sustain their business.

However, by embracing these recommendations, healthcare companies can position themselves at the forefront of innovation, driving better patient outcomes and operational efficiency. Investing in AI-driven diagnostics, robust data security, and automation isn't just about keeping up—it's about leading the way in a competitive market. By taking proactive steps now, companies can ensure long-term success, build trust with patients, and create a more resilient and agile organization ready to meet the challenges of tomorrow. The future of healthcare is bright for those who choose to adapt and grow.