Serverless healthcare platform
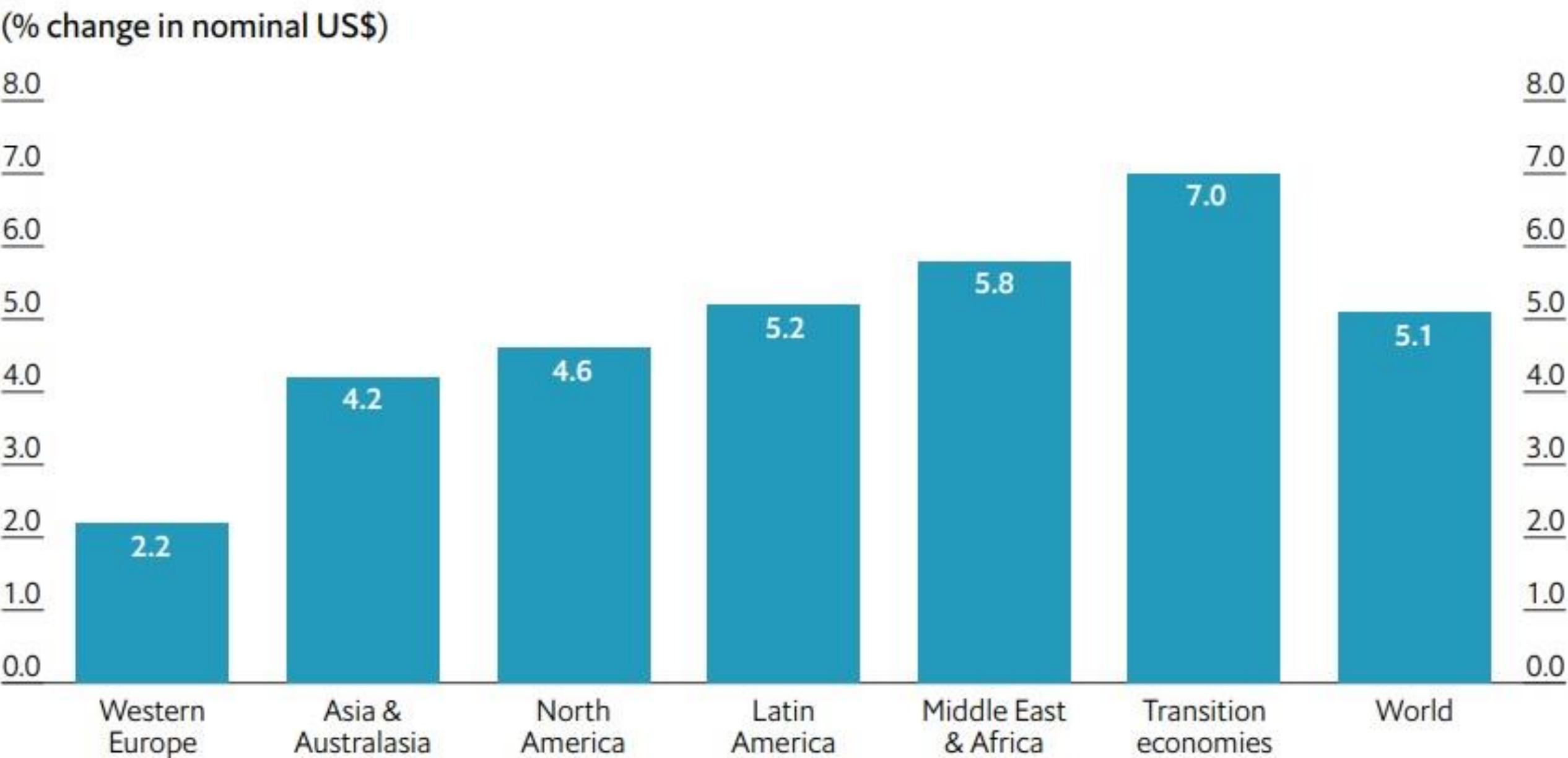
Anand Iyer
Enterprise Solution Architect, AISPL
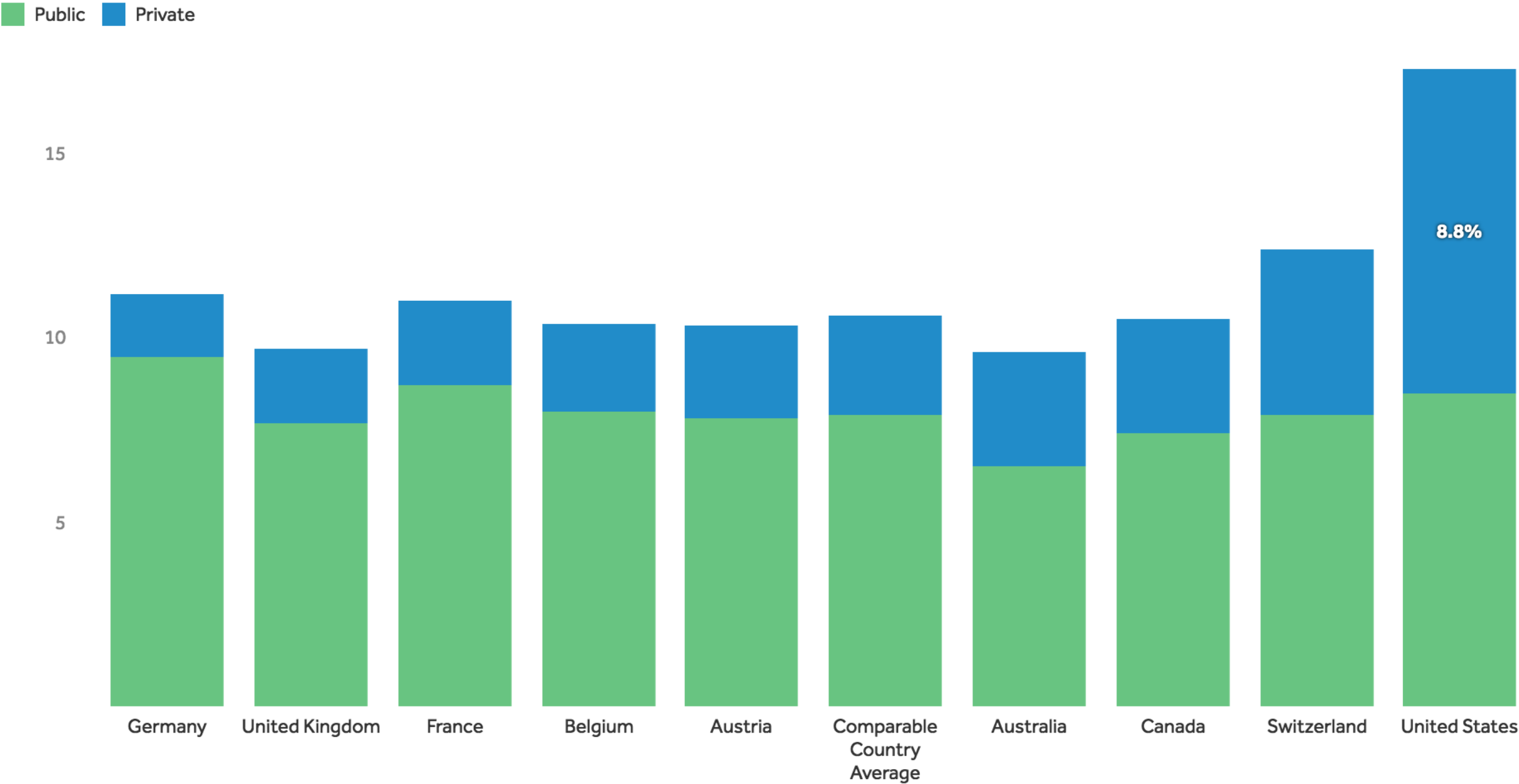
Health spending growth in 2019

(% change in nominal US$)

Source: The Economist Intelligence Unit.

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Total health expenditures as percent of GDP by public vs. private spending, 2016

■ Public   ■ Private

Germany	United Kingdom	France	Belgium	Austria	Comparable Country Average	Australia	Canada	Switzerland	United States

8.8%

Healthcare evolution

- Chronic care instead of merely acute care
- Remote care (monitoring, assistance, consultation, diagnosis, operation) and home care
- Patient-oriented care and patient empowerment
- Need for reliable and coordinated management and access to knowledge
- Cost control

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However, this evolution needs…

- Collaboration between all actors in health care
- Efficient and safe electronic communication between all actors
- High-quality electronic patient files, across specialties
- Information Security
- Privacy Protection
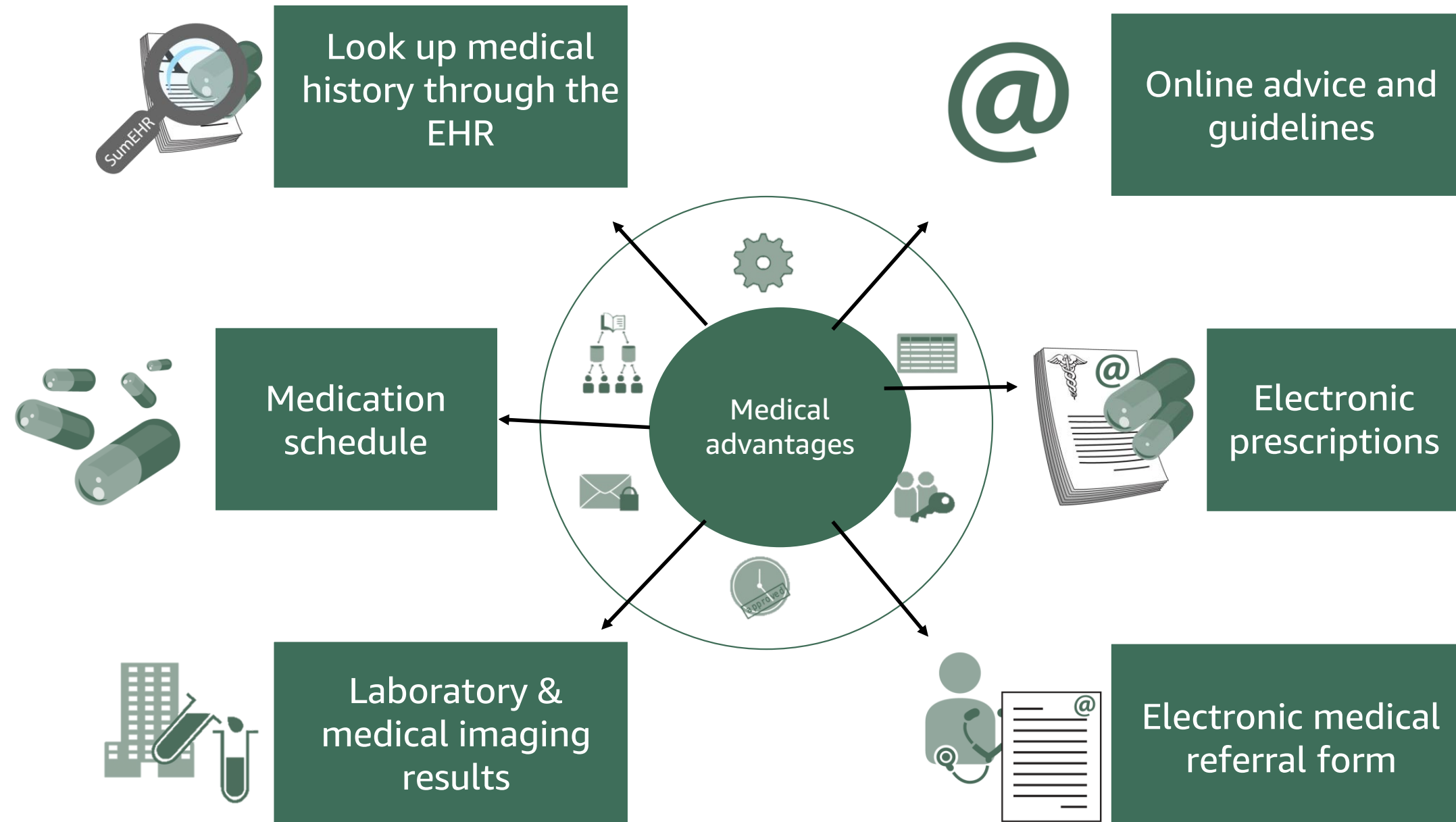
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Mission of an eHealth Platform

- **How?**
  - Through a well-organized, mutual electronic service and information exchange between all actors in health care
  - By providing the necessary guarantees with regard to information security, privacy protection and professional secrecy
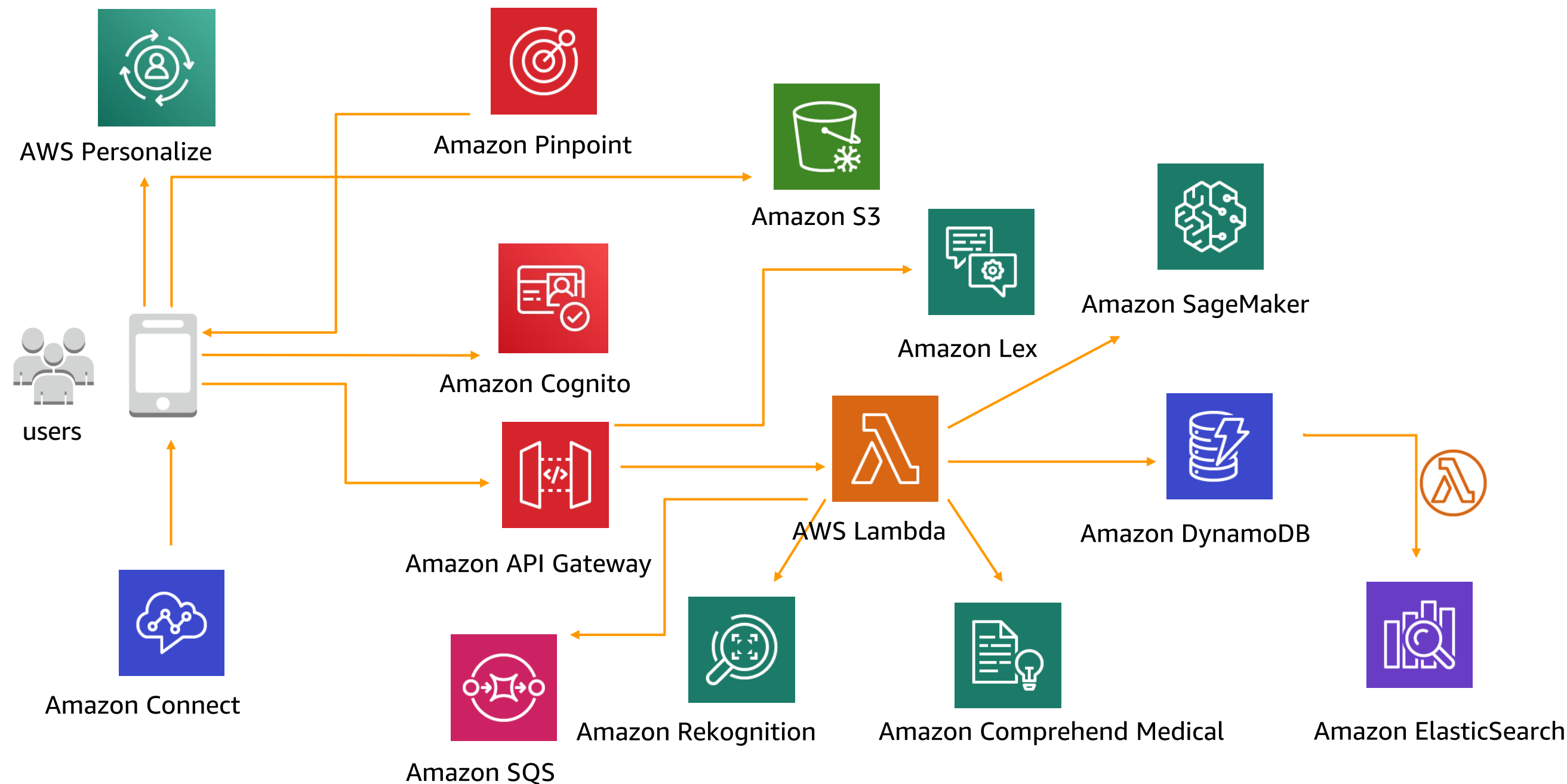
- **What?**
  - Optimization of health care quality and continuity
  - Optimization of patient safety
  - Reduction of administrative burden for all actors in health care

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eHealth platform

Look up medical history through the EHR

Online advice and guidelines

Medication schedule

Medical advantages

Electronic prescriptions

Laboratory & medical imaging results

Electronic medical referral form

Demo

aws SUMMIT ONLINE

Serverless eHealth platform architecture

AWS Personalize

Amazon Pinpoint

Amazon S3

Amazon SageMaker

Amazon Lex

Amazon Cognito

users

Amazon API Gateway

AWS Lambda

Amazon DynamoDB

Amazon Connect

Amazon SQS

Amazon Rekognition

Amazon Comprehend Medical

Amazon ElasticSearch

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| AWS Service	Serverless	Database	AI/ML
Amazon Cognito	✓		
Amazon S3	✓		
Amazon Lex	✓		✓
AWS Lambda	✓		
Amazon Rekognition	✓		✓
Amazon Comprehend Medical	✓		
Amazon SageMaker	✓		✓
Amazon Pinpoint	✓		
Amazon ElasticSearch	✓		
Amazon DynamoDB	✓	✓	
AWS Personalize	✓		✓
Amazon Connect	✓		
Amazon APIGateway	✓		

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Architecting for HIPAA in the cloud

You can use AWS to run sensitive workloads regulated under the U.S. Health Insurance Portability and Accountability Act (HIPAA). If you plan to include Protected Health Information (as defined by HIPAA) on AWS services, you must first accept the AWS Business Associate Addendum (AWS BAA). You can review, accept, and check the status of your AWS BAA through a self-service portal available in AWS Artifact.

Any AWS service can be used with a healthcare application, but only services covered by the AWS BAA can be used to store, process, and transmit Protected Health Information under HIPAA.
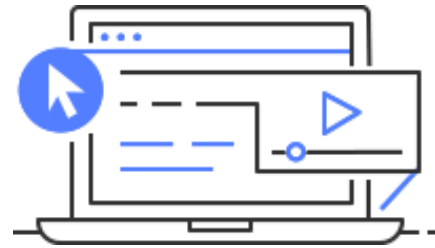
View the current list of services covered by the AWS BAA »

AWS Training and Certification
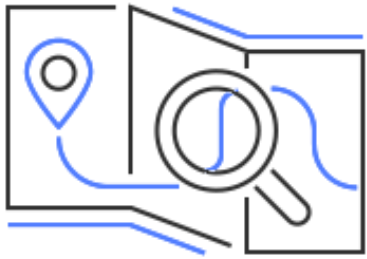
Training for the Whole Team

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Flexibility to Learn Your Way

Build cloud skills with 550+ free digital training courses, or dive deep with classroom training

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Demonstrate expertise with an industry-recognized credential

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Thank you!

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