

# Business Thinking & Organizational Structure

Data Sciences Institute  
Topics in Deep Learning

# Healthcare Initiatives

## Healthcare Initiatives

- When brainstorming healthcare initiatives, it is important to take into account key stakeholders:
  - Patients
  - Clinicians
  - Healthcare providers
- All have pivotal roles in both the industry's overall success and the well-being of patients.

# AI Center of Excellence

TODO

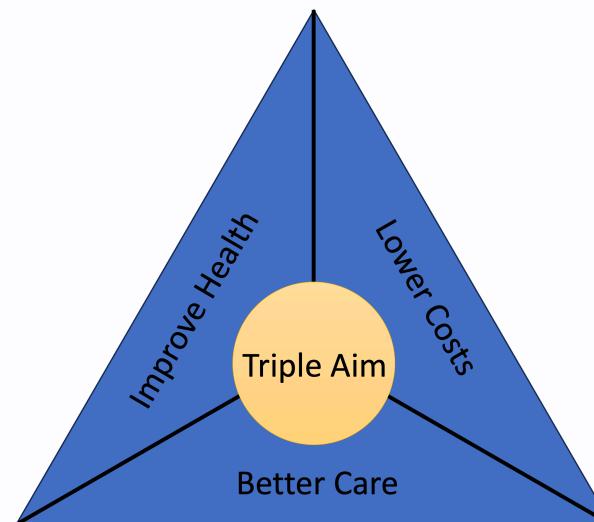
# Triple Aim Framework

## **Triple Aim Framework**

- Developed by Dr. Donald Berwick and colleagues at the Institute for Healthcare Improvement (IHI) in 2007.
- A set of three interconnected goals aimed at improving healthcare systems and the overall health and well-being of populations.

# Triple Aim Framework

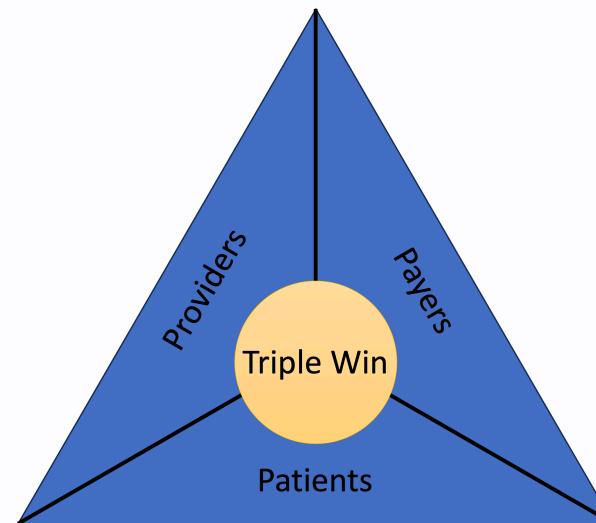
- 1. Improving Population Health:** Enhance the health of a defined population.
- 2. Enhancing Patient Experience of Care:** Improve the experience of care for individual patients.
- 3. Reducing the Per Capita Cost of Healthcare:** Reduce the overall cost of healthcare while maintaining or improving quality.



# Triple Win Framework

# Triple Win Framework

- When thinking about new ideas, try expanding "Triple Aim" to "Triple Win".
- You need to consider how your idea creates value for all three stakeholders: patients, clinicians, and funders.





## Patient

*Improve Outcomes, Improve Experience, Increase Access*

1. What specific need or problem has not been addressed yet?
2. How many patients can benefit from this idea?
3. Does this idea lead to a change in their lives? Is it large- or small-scale improvements in outcomes or experiences?
4. What are the alternatives that exist now or could exist in the future to address this need or problem?

## Clinician

*Extend Expertise, Reduce Burnout, Advance Careers*

- Which team members will be affected by this idea?
- How will their daily tasks and responsibilities be altered?
- Will the idea contribute to improved efficiency and the overall well-being of team members?
- What potential opportunities does it bring, such as the possibility of publications, educational benefits, or enhanced connections with colleagues?

## Funder

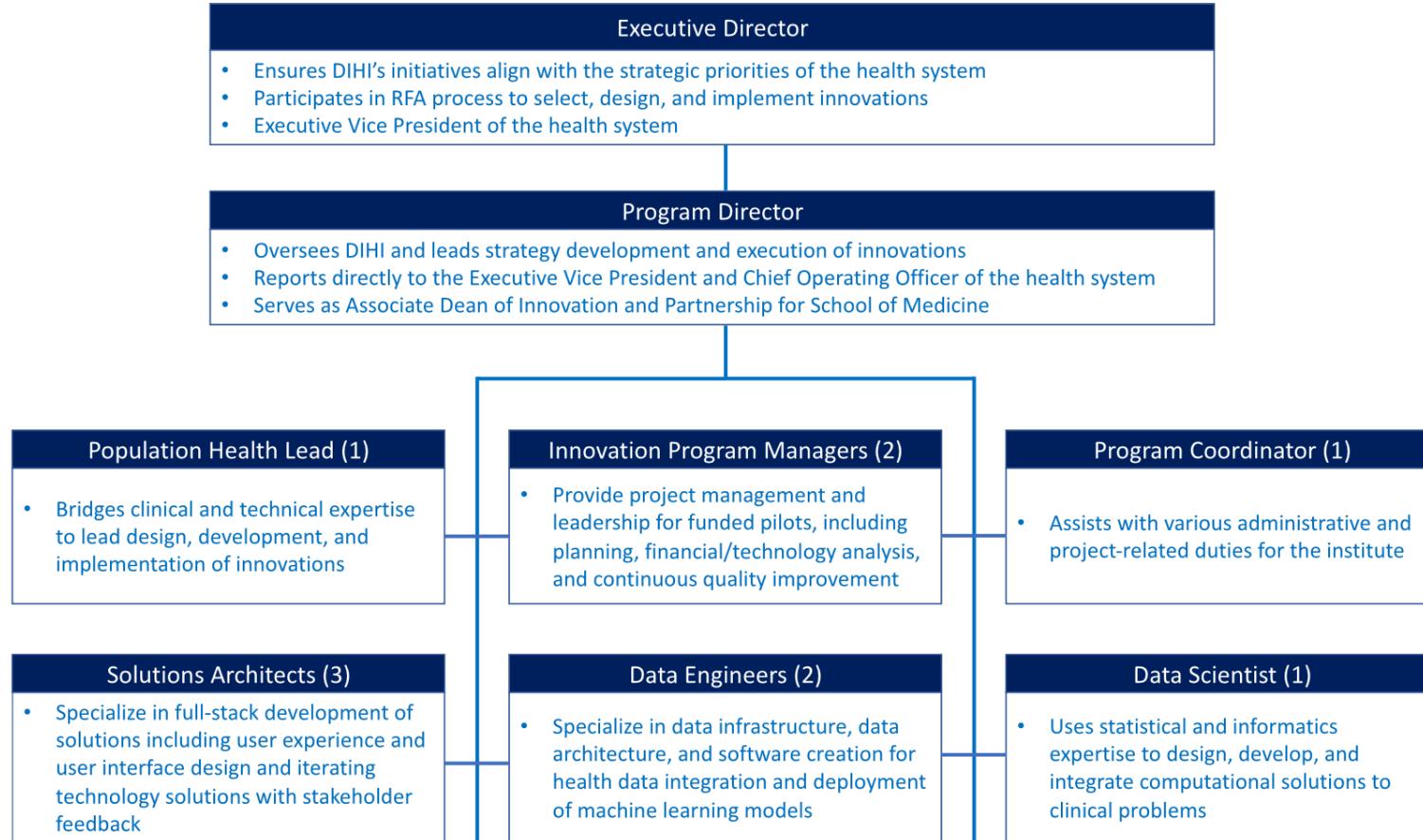
*Growth, Financial Stability, Expand Reputation, Talent Retention*

- How does this idea generate financial value, such as through direct reimbursement, contractual fees, or licensing revenue?
- Who pays for this, is it the patient, insurance providers, hospitals, pharmaceutical companies, or government entities?
- What is the effect of this idea on the brand or reputation of the entity involved?
- Will this idea lead to the creation of new career opportunities?

# Medicine happens in buildings (usually)

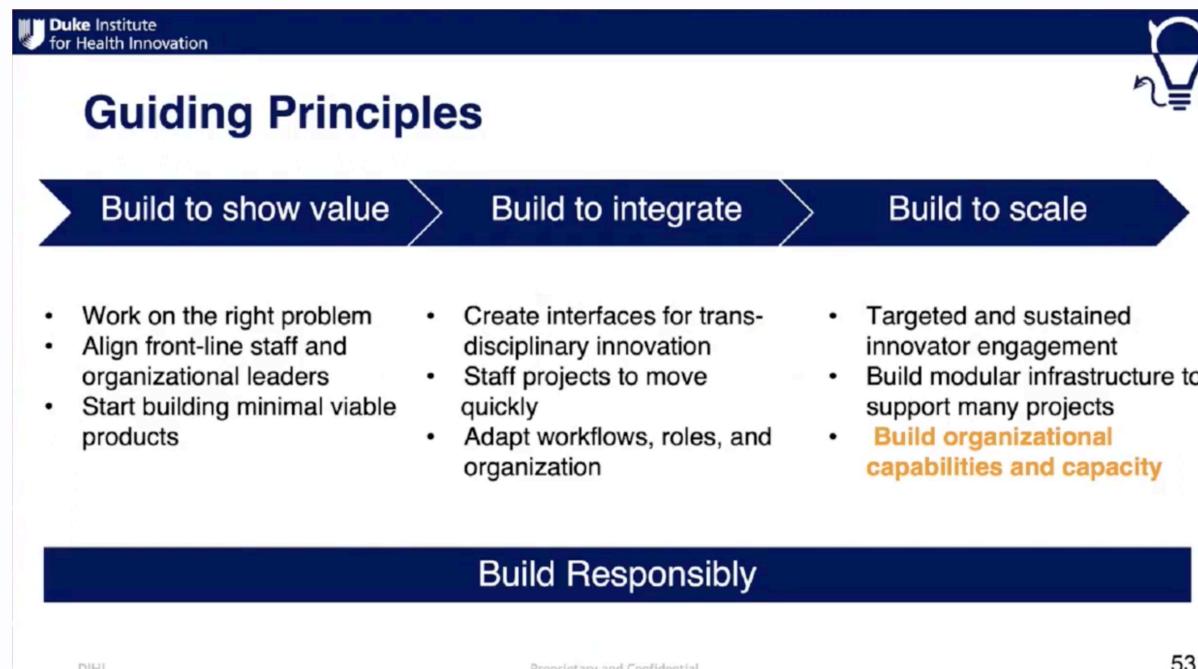


# Example Org Chart



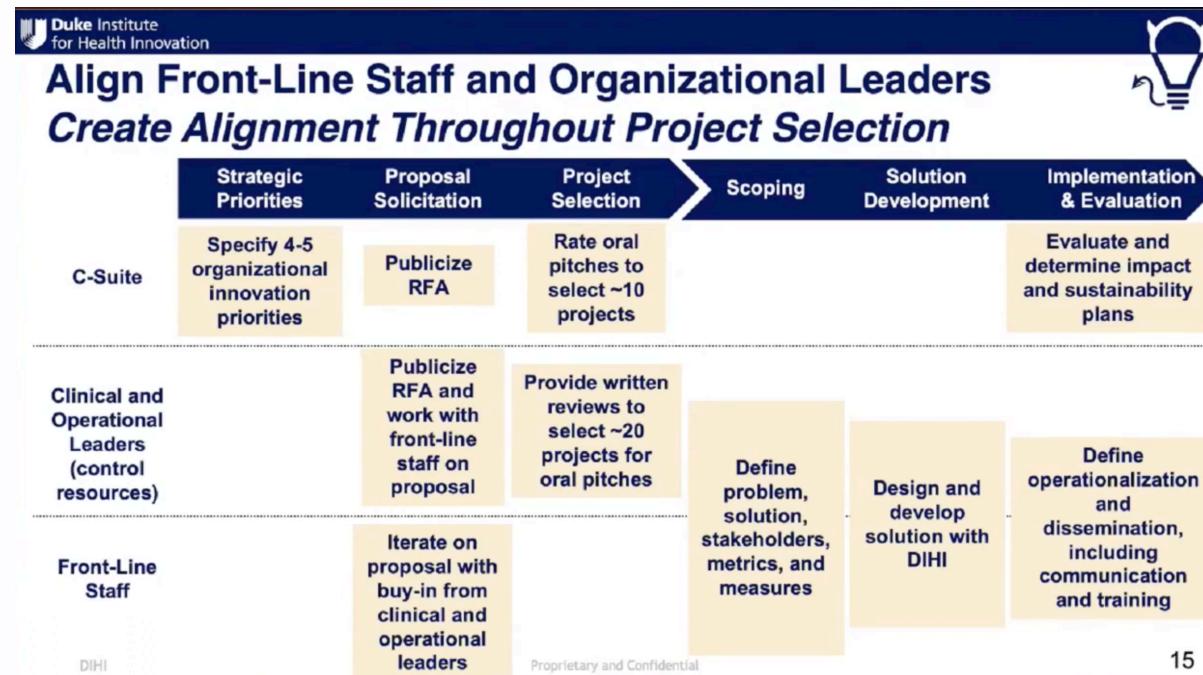
Source: Sandhu et. al (2023)

# Create a sense of urgency



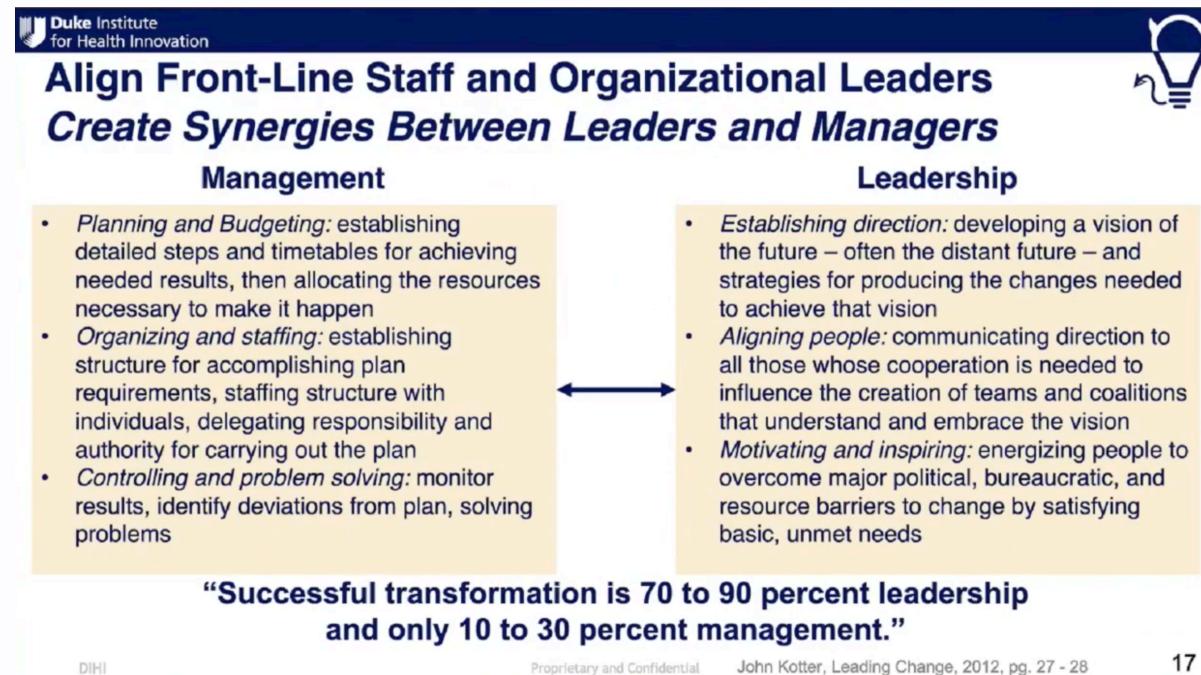
Source: AI in biomedical data analytics and population health

# Top to bottom



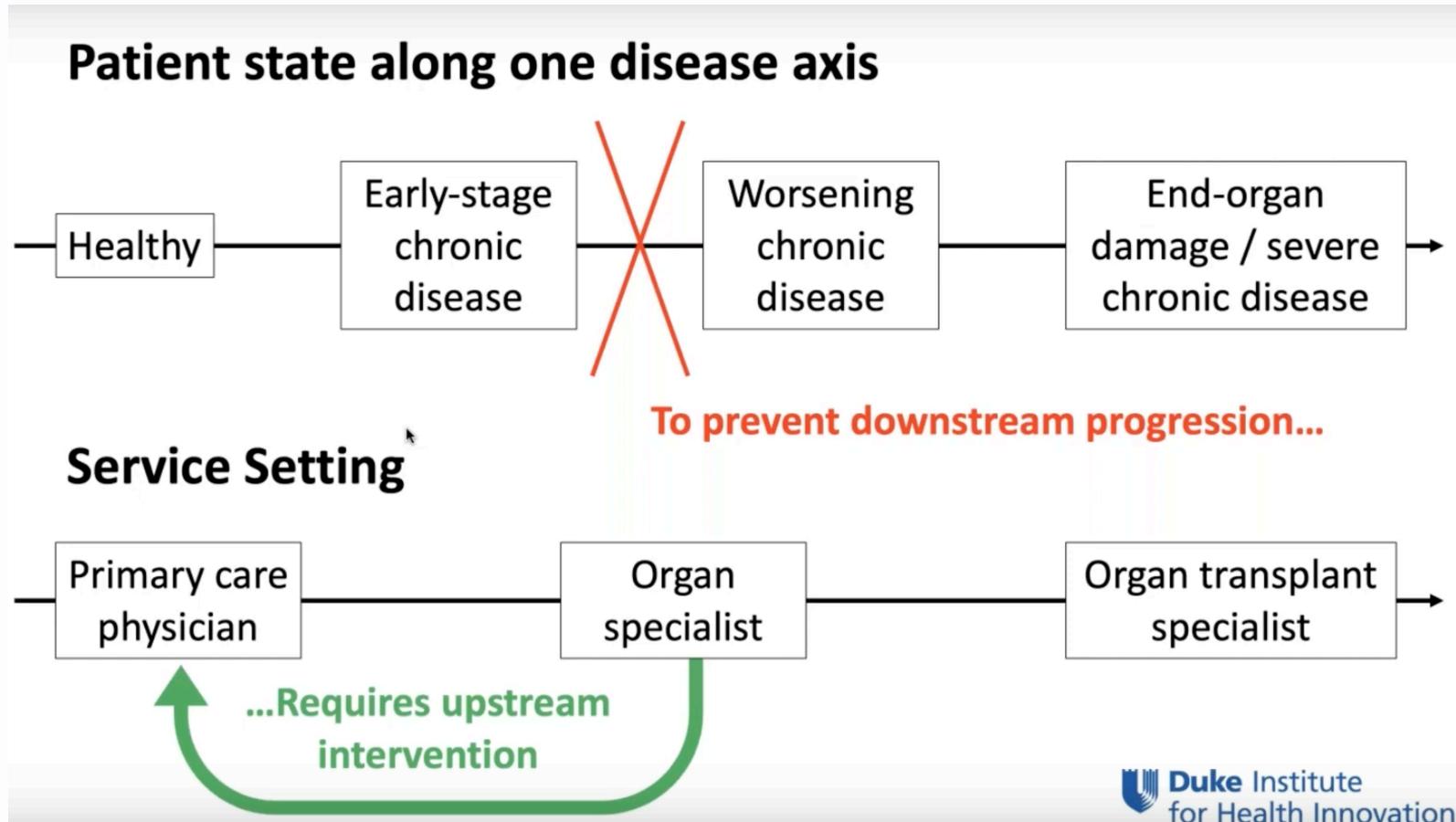
Source: AI in biomedical data analytics and population health

# At the top



Source: AI in biomedical data analytics and population health

# Example of making the alignment



Source: Increasing AI Tool Adoption by Front-Line Workers

# Business Pitch

## Introduction to Business Pitches

- **Definition:** A business pitch is a brief presentation by an entrepreneur to potential investors, partners, or customers, showcasing their business idea and strategy.
- **Purpose:** Designed to secure funding, partnerships, or sales.
- **Importance:** A compelling pitch can make the difference between securing support or missing out on valuable opportunities.

**Create an Outline of Your  
Pitch Deck**

## Why do you need an outline?

- **Clarity & Narrative:** An outline helps you create a clear and compelling narrative about:
  - The market
  - Unmet needs
  - Your strategy to meet them
- **Anticipate Questions:** Planning ahead allows you to foresee and address potential queries from investors and stakeholders.

## What do you include in your outline?

1. Problem/Opportunity Identification
2. Solution & Technology
3. Market Opportunity & Size
4. Business Model & Go-to-Market Strategy
5. Competitive Landscape Analysis
6. Intellectual Property (IP) Strategy
7. The Team & Management
8. Funding Requirements & Use of Proceeds ("The Ask")

# Create Your Pitch Deck

## **Executive Summary & Company Overview**

- Provide a succinct overview that encapsulates the mission, technology origin, development stage, and funding objectives.
- Hook investors with the company's purpose, trajectory, and the unique problem it solves.
- Highlight the current development phase (e.g., preclinical, Phase 1 trials) and the investment ask.

## The Team & Management

- Showcase the team's expertise, previous successes, and the strategic formation of advisory boards.
- Discuss the completeness of the team, recruitment plans for missing expertise, and key partnerships.
- Position the team's capability as a cornerstone for the project's success.

## Problem/Opportunity Identification

- Clearly articulate the problem being addressed, emphasizing the pain points and the stakeholders affected.
- Detail the problem's scale, current solutions' limitations, and the opportunity for improvement.

## **Solution & Technology**

- Describe the product's value proposition and its significance in addressing the identified need.
- Present data or evidence supporting the technology's efficacy, mechanism of action, without disclosing proprietary information.
- Ensure the explanation is investor-friendly, focusing on crucial details rather than overwhelming with technical data.

## Market Opportunity & Size

- Illustrate the commercial potential, focusing on a well-defined market segment.
- Provide market size estimates, target and secondary market descriptions, and the rationale behind market choice.
- Emphasize why the timing is right for the product and how the company plans to capture market share.

## **Business Model & Go-to-Market Strategy**

- Outline the income strategy and how the startup intends to deliver returns to investors.
- Discuss the development plan, regulatory milestones, and necessary partnerships for market entry.
- Utilize frameworks like the business model canvas to articulate a coherent strategy.

## Competitive Landscape Analysis

- Identify competitors and substitutes, highlighting your product's differentiators and advantages.
- Discuss market readiness for a new solution and why current gaps have not been addressed effectively.

## **Intellectual Property (IP) Strategy**

- Share details on patent filings, trade secrets, and the company's overall IP strategy.
- Include patentability and freedom to operate analyses, ensuring enough detail for evaluation without revealing confidential information.

## Funding Requirements & Use of Proceeds ("The Ask")

- Clearly state the funding needed, outlining past funding usage and future financial planning to achieve milestones.
- Discuss potential exit strategies, giving investors a clear understanding of the return on investment.

# Tips For Your Pitch Deck

## Understanding Your Audience

- **Research:** Know your audience's background, interests, and investment focus.
- **Tailoring Your Message:** Customize your pitch to resonate with your audience's specific interests and concerns.

## Crafting Your Message

- **Clarity and Conciseness:** Be clear and direct.
- **Storytelling:** Incorporate storytelling to connect emotionally and make your pitch memorable.
- **Visuals:** Use visuals (graphs, images, and infographics) to support your message .
- **Tips:** Keep slides clean and focused, and use bullet points.

## **Delivering Your Pitch**

- **Confidence:** Practice your pitch to deliver it confidently.
- **Preparation:** Anticipate questions and rehearse answers.
- **Handling Questions:** Listen carefully, and answer questions directly and positively.

## Common Pitfalls to Avoid

- **Overcomplication:** Keep it simple.
- **Lack of Focus:** Stay on topic and ensure each slide contributes to your overall message.
- **Ignoring Feedback:** Be open to feedback and use it to refine and improve your pitch.

# **Successful AI-based HC companies**



# flatiron

<https://flatiron.com>

## Flatiron health

- Healthcare technology company specializing in cancer research and patient care.
- **Data Curation and Analysis:** Analyzes data, including EHRs, for real-world cancer care insights.
- **Software Solutions for Clinics:** Offers cloud-based oncology software to improve clinic operations and patient care.
- **Research Collaboration:** Collaborate with the life sciences sector for cancer research to accelerate therapy development.
- **Insights for Oncology Care:** Provides healthcare insights to enhance care quality, inform policy, and guide strategic planning.

**"TEMPUS**

<https://www.tempus.com>

## Tempus Labs

- Tech company focused on precision medicine, using artificial intelligence to analyze clinical and molecular data.
- **Genomic Sequencing:** Perform genomic sequencing for targeted disease treatments.
- **Data Analytics:** Analyze clinical and molecular data for treatment insights.
- **Clinical Data Structuring:** Structure unstructured medical data.
- **Collaboration with Healthcare Research:** Collaborate with healthcare and research entities to advance personalized medicine



**RECURSION**  
pharmaceuticals

<https://www.recursion.com>

## Recursion Pharmaceuticals

- Biotech company using AI and automation for drug discovery.
- **Drug Discovery:** Use AI to rapidly identify potential drugs for a wide range of diseases.
- **High-throughput Screening:** Employ automation and robotics to perform experiments at a large scale.
- **Data-driven Insights:** Data-driven insights from biological data and machine learning to speed up pharmaceutical research.