

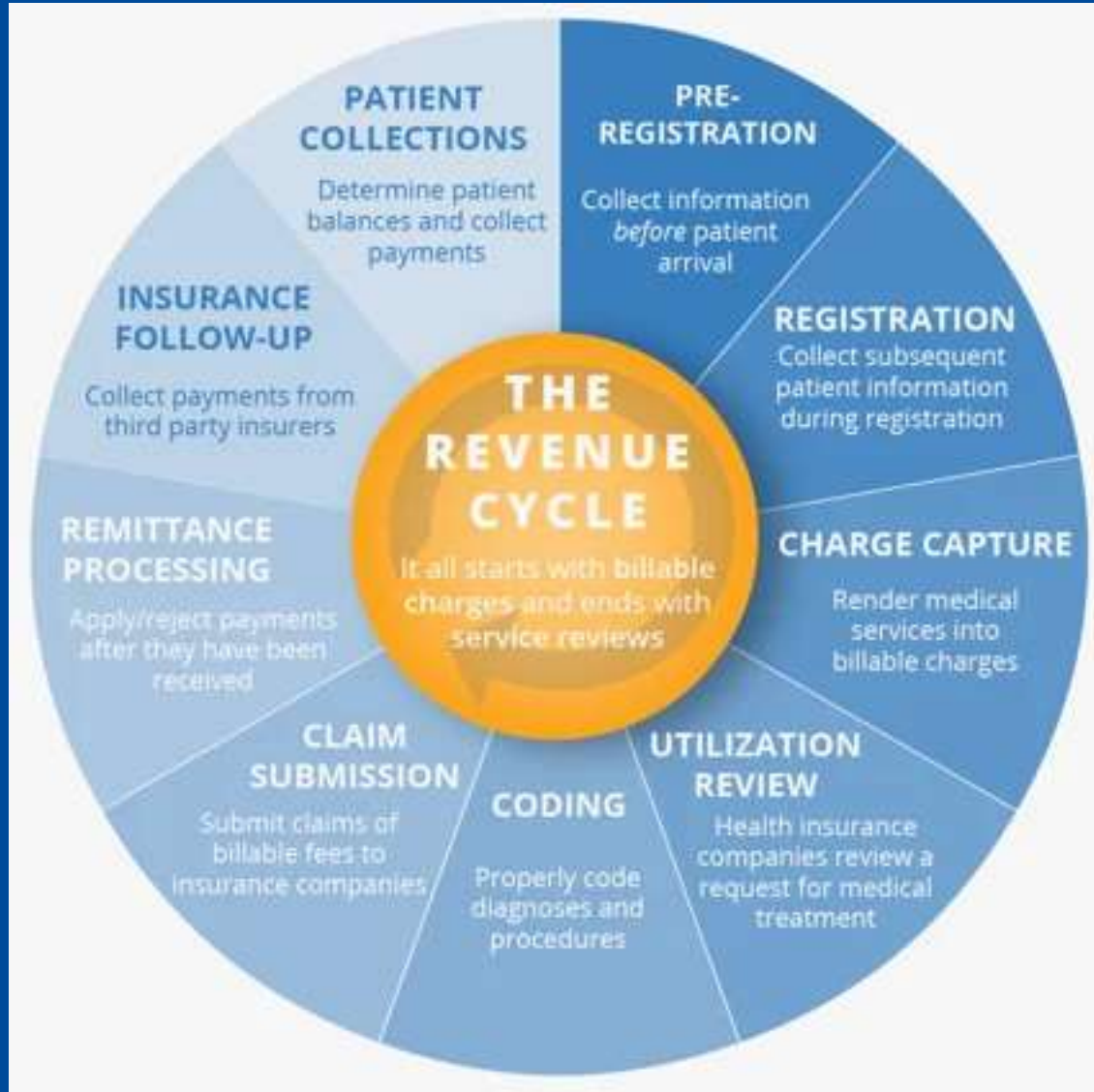
AI Technology: The Power and Promise of Artificial Intelligence in Healthcare Finance



The End of Competitive Chess



Administrative Applications



“Administrative complexity is the greatest source of waste in the United States today and can be a result of payers’ efforts to reduce waste by reducing over-treatment and low value care”



The screenshot shows the top of a web page from Health Affairs. The navigation bar includes 'HealthAffairs' in a red box, followed by 'COVID-19' in a blue box, and links for 'Topics', 'Journal', 'Forefront', and 'Podcasts'. Below the navigation bar is an advertisement banner from the American Nurses Foundation with the text: 'We're partnering to help ensure young nurses and nurses of color [have access](#) to mental health resources earlier and more effectively. [Learn more](#) →'. Below the advertisement, the article is categorized as a 'RESEARCH BRIEF' under the topic 'CONSIDERING HEALTH SPENDING'. The main title of the article is 'The Role Of Administrative Waste In Excess US Health Spending'. A short summary below the title states: 'Research points to administrative waste as a critical driver of excess health spending in the US.'

<https://jamanetwork.com/journals/jama/article-abstract/2752664>

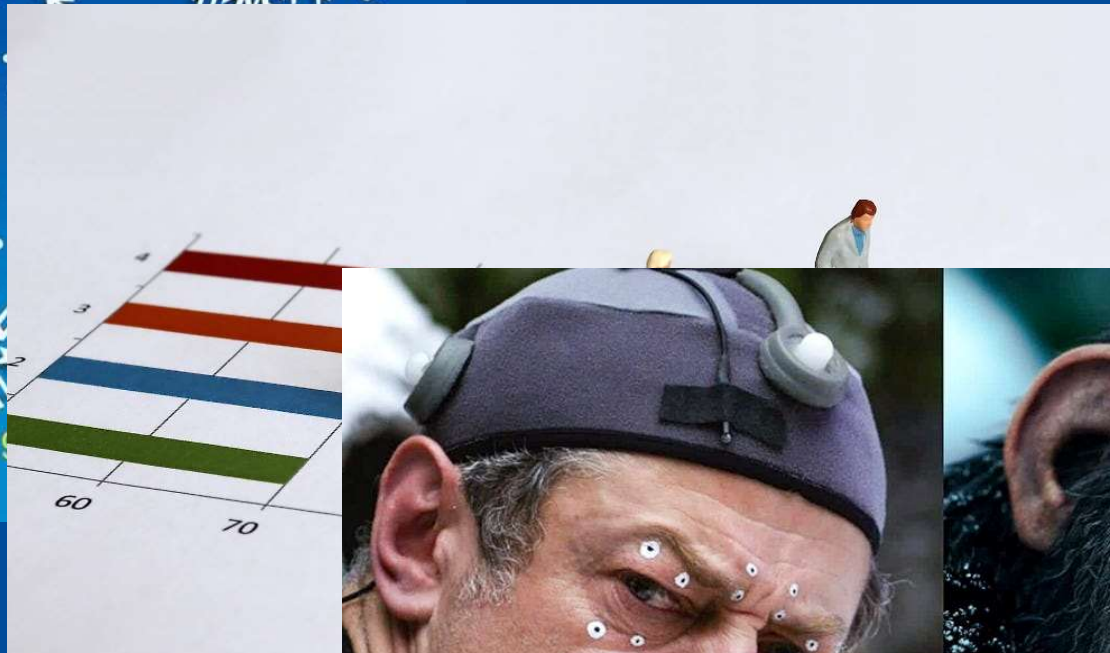
Administrative Applications



Today's Objectives

- Describe the real meaning of key terms
 - AI
 - Algorithms
 - machine learning
- Help you plan your path forward

What is it?



A Practical Example



Algorithm



Convert
Fahrenheit → Celsius

Following conversion formula:

$$\frac{5}{9}$$

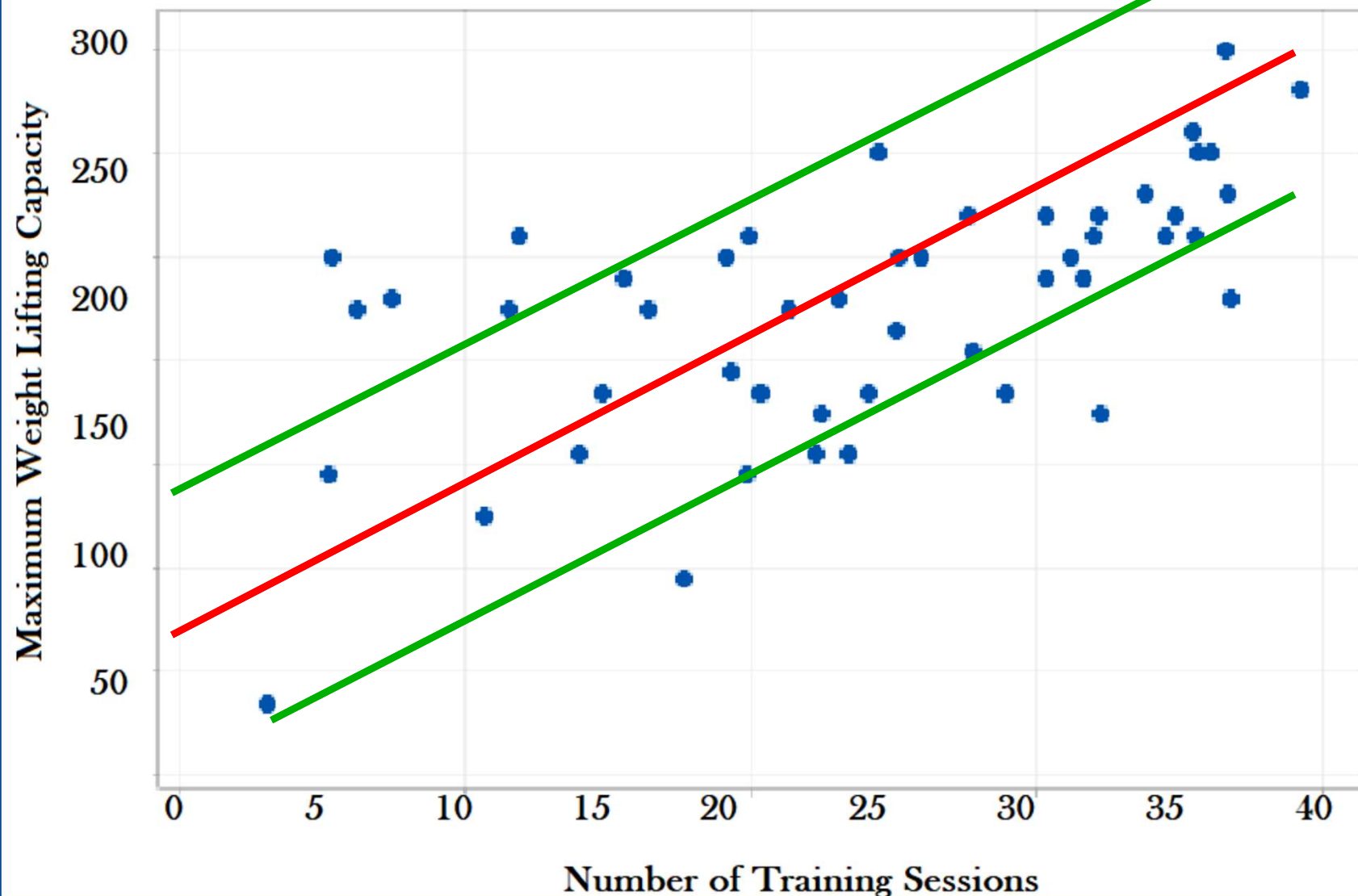
Where:

$$C = \frac{5}{9}(F - 32)$$



Training & Performance

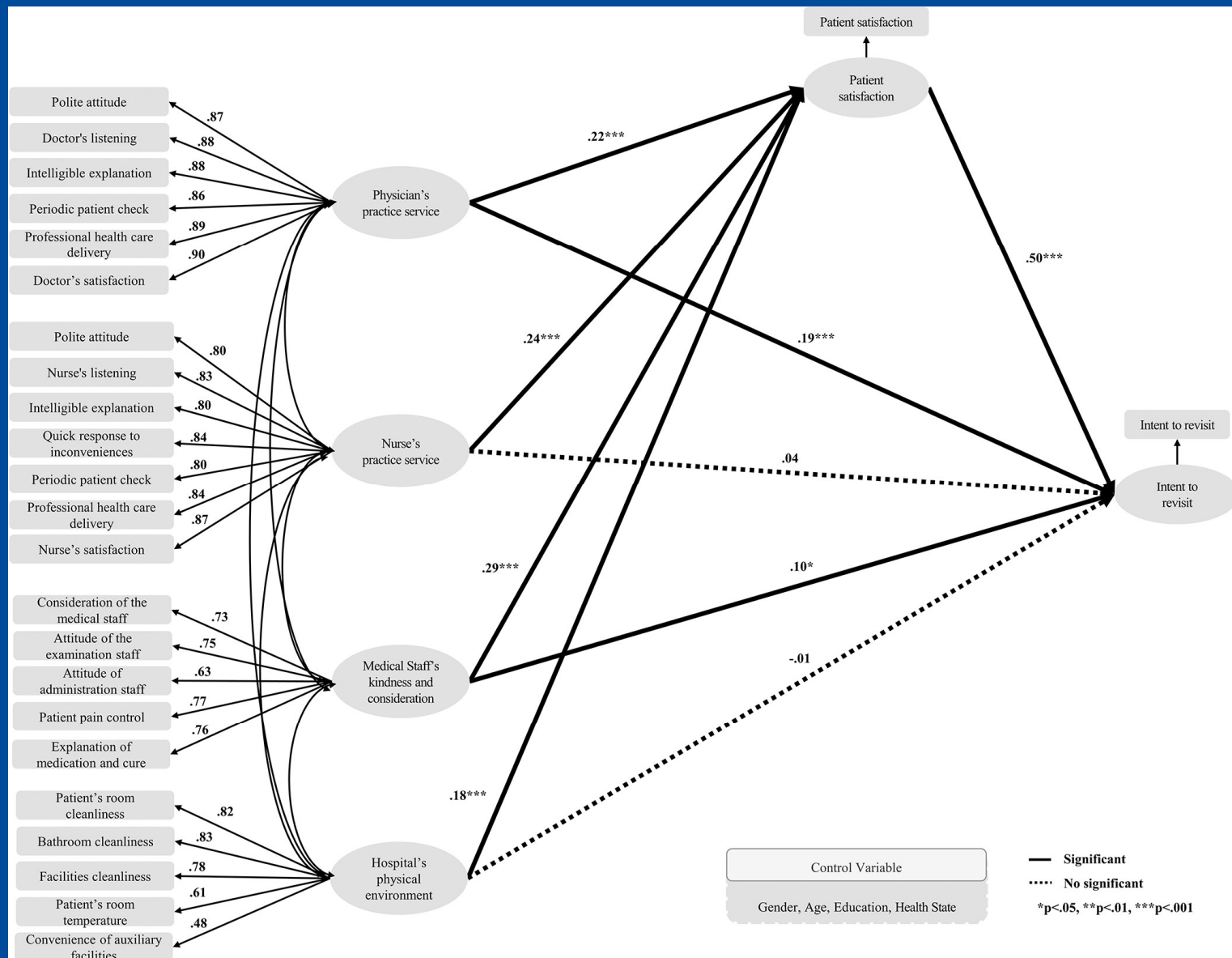
Linear Regression



Multiple Regression



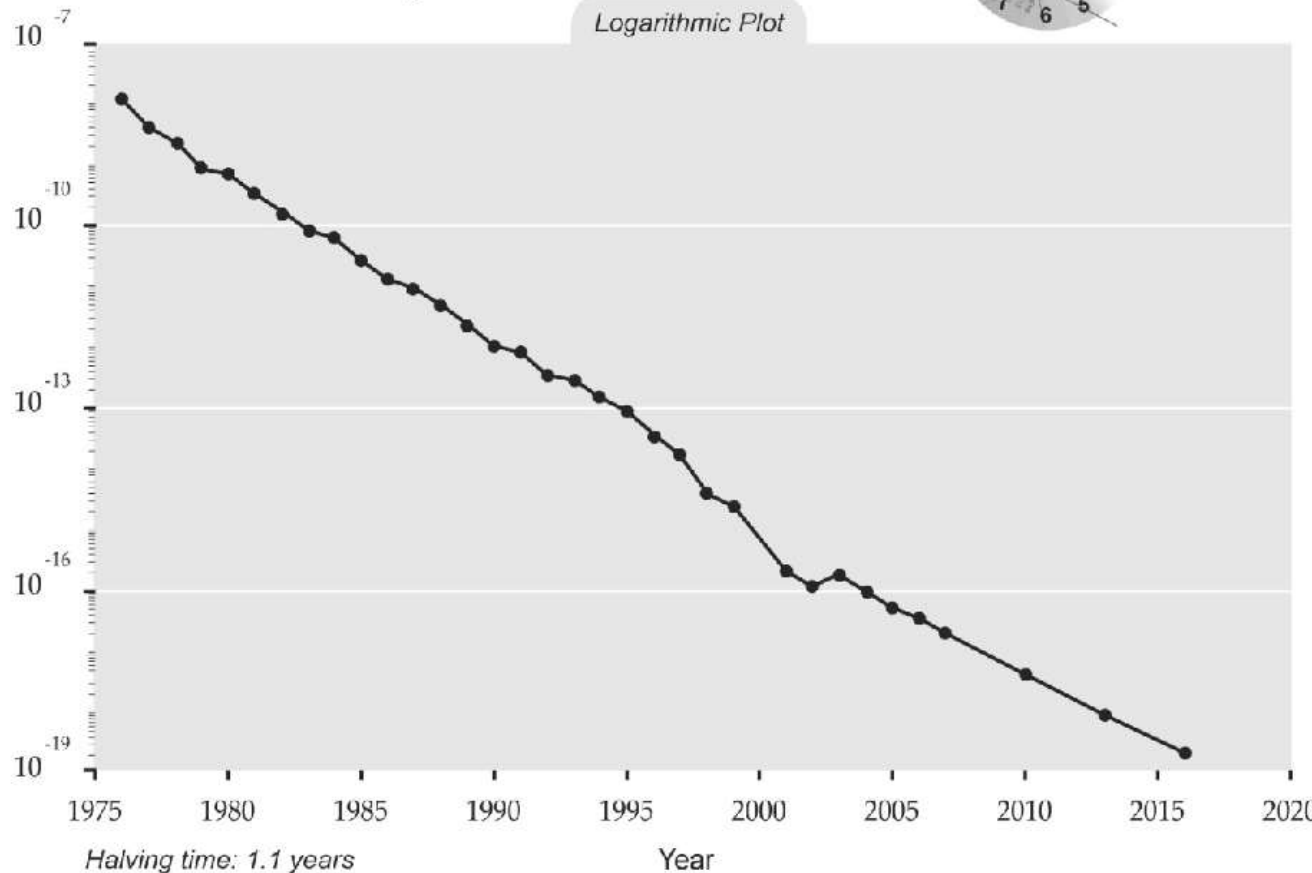
Path Analysis



It's all about the cost

**Microprocessor Cost
Per Transistor Cycle**

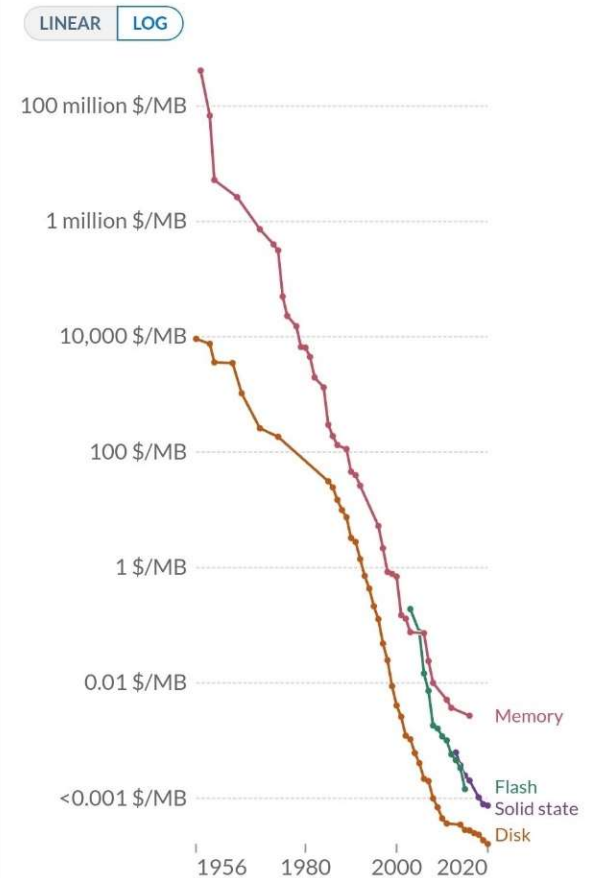
Logarithmic Plot



**Historical cost of computer
memory and storage**

Measured in US dollars per megabyte.

Our World
in Data



Source: John C. McCallum (2022)

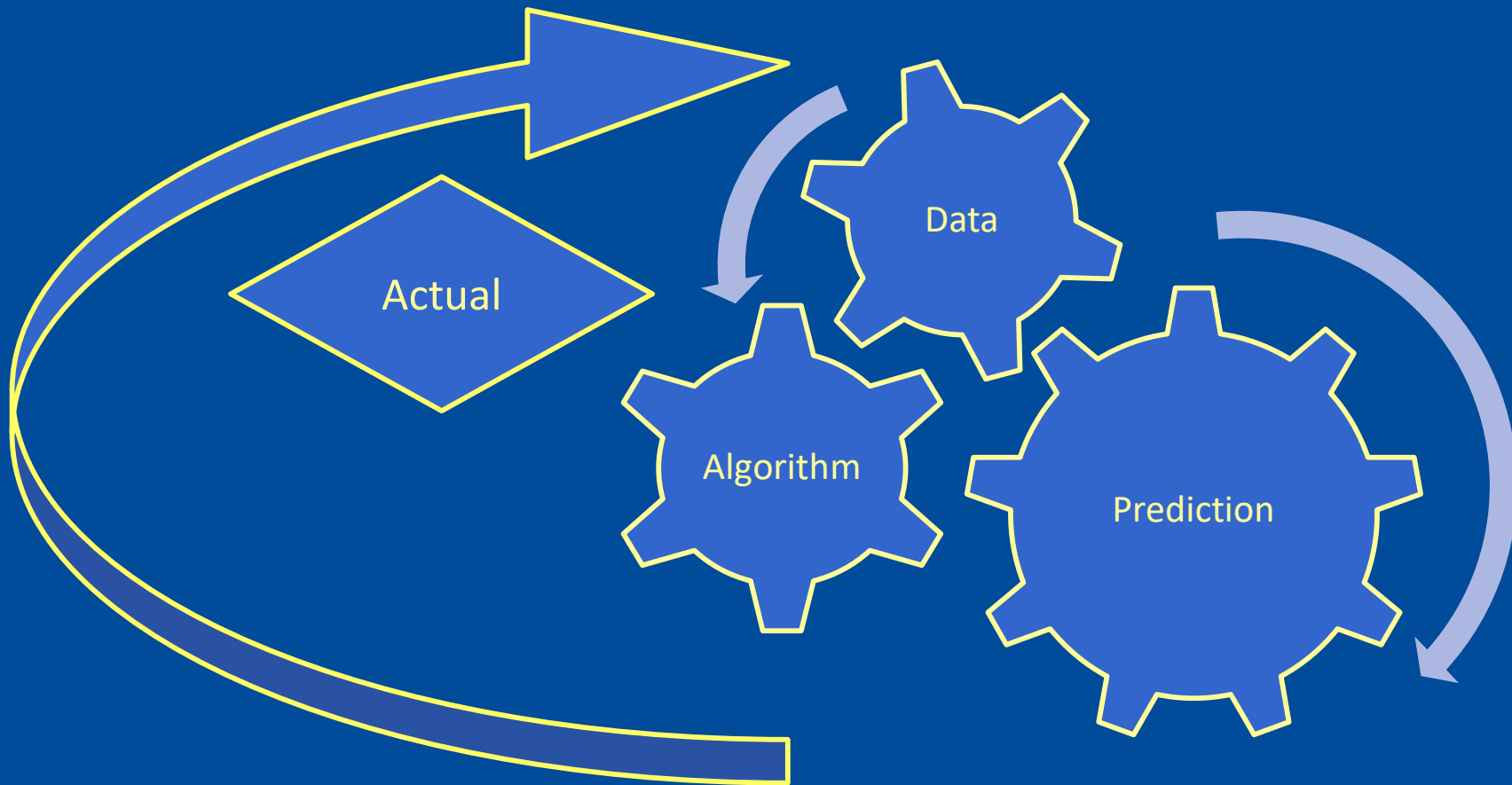
Note: For each year the time series shows the cheapest historical price recorded until that year.

OurWorldInData.org/technological-change • CC BY

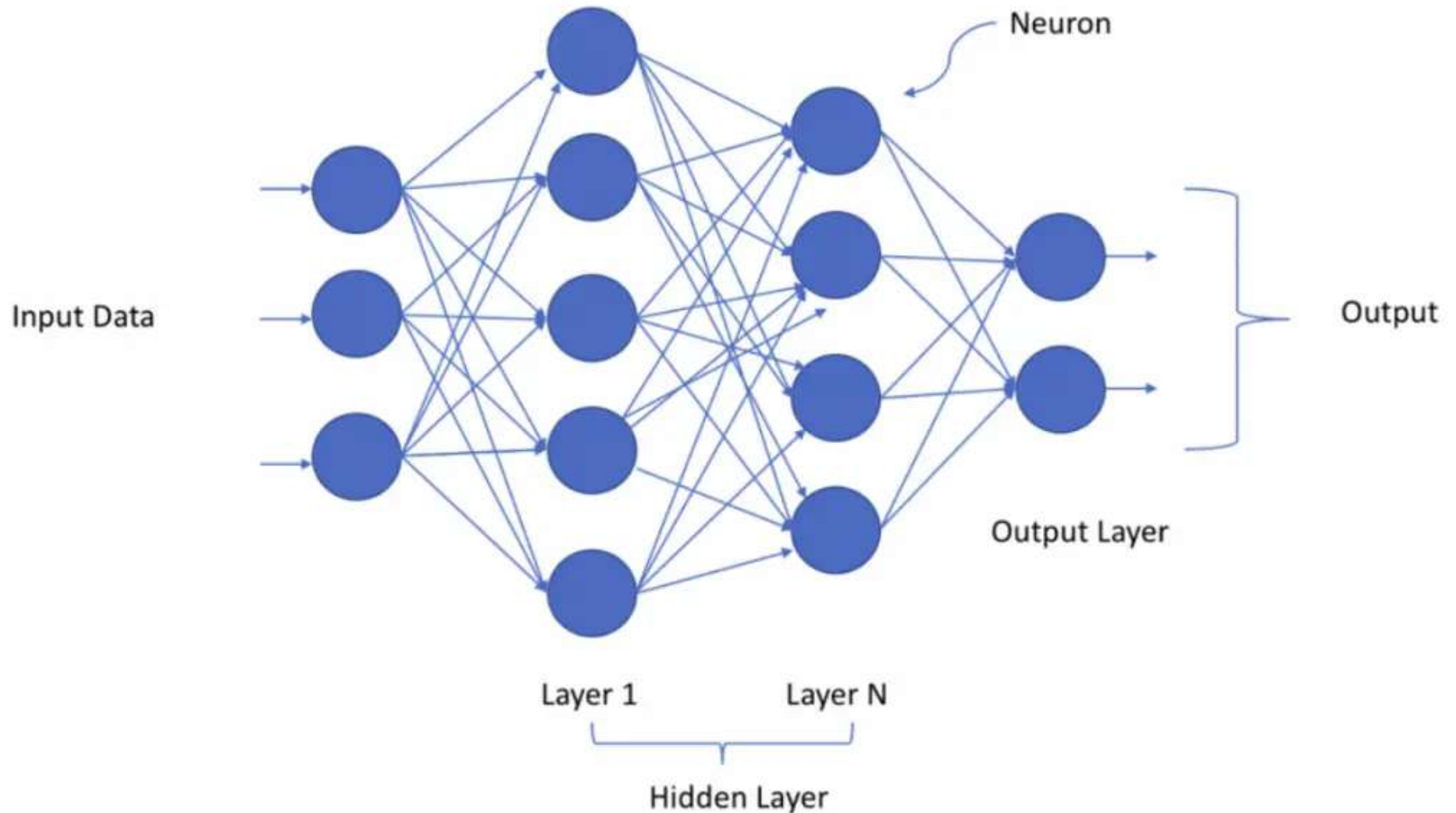
Training Data



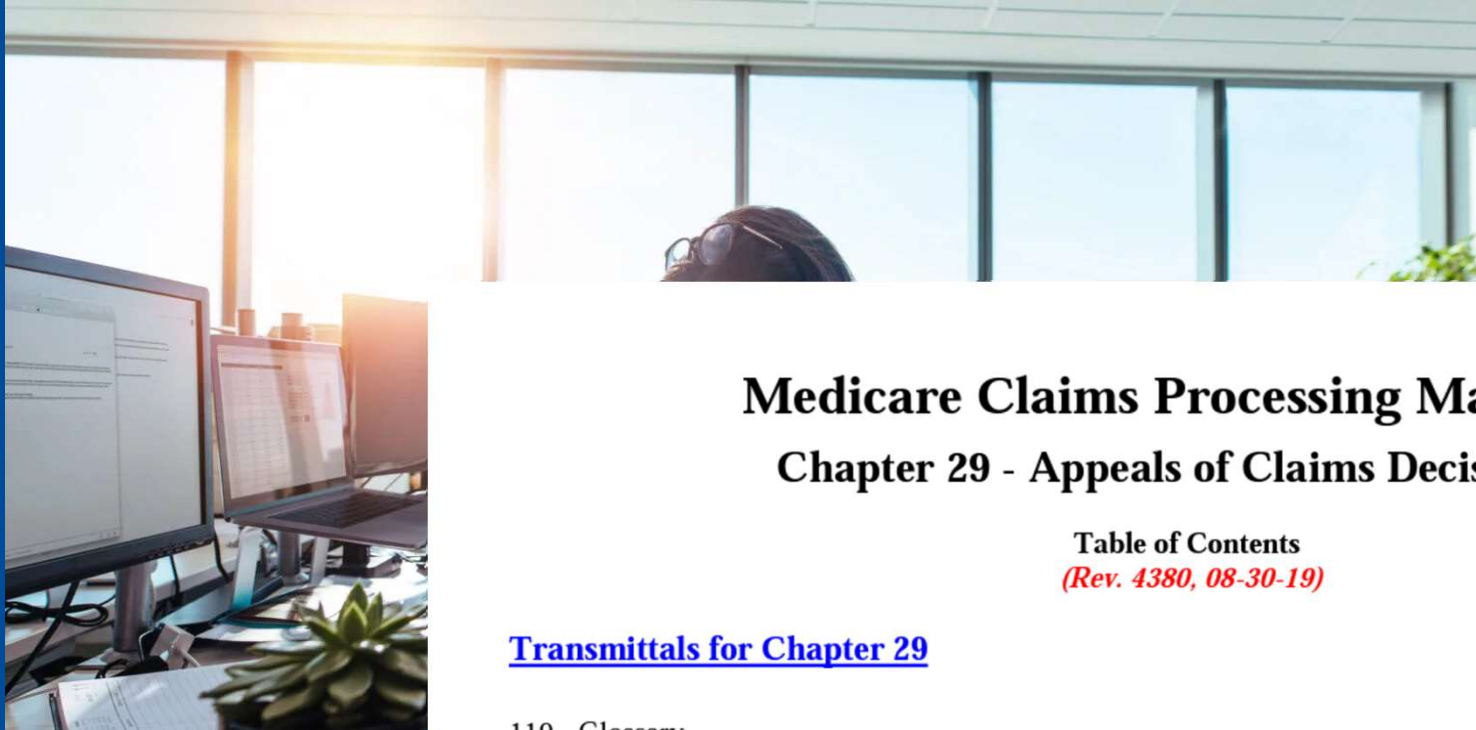
Machine Learning



Neural Networks



Why Would Payers Care?



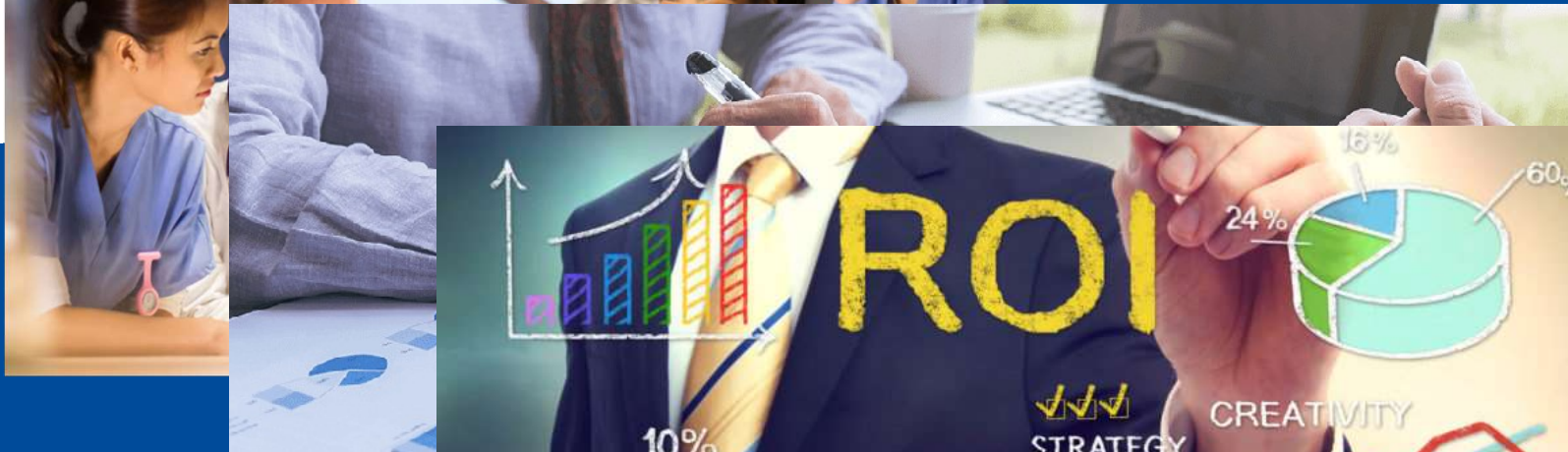
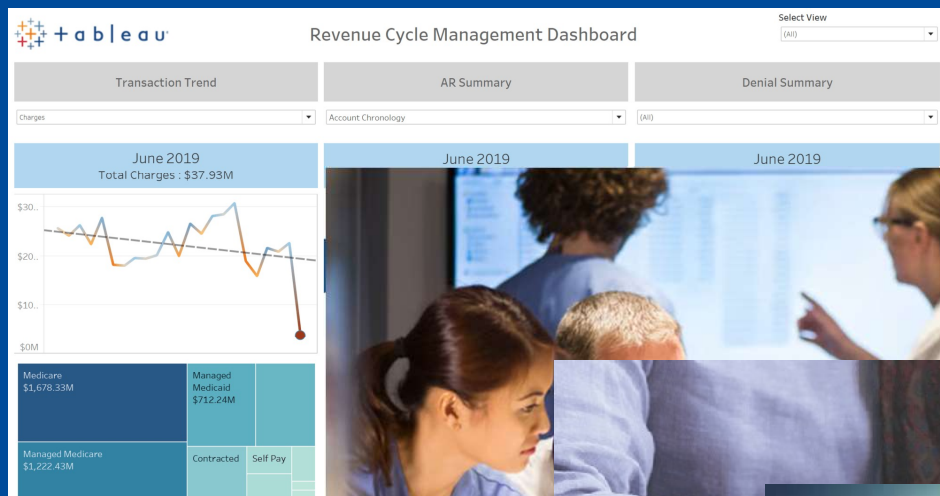
Medicare Claims Processing Manual Chapter 29 - Appeals of Claims Decisions

Table of Contents
(Rev. 4380, 08-30-19)

Transmittals for Chapter 29

- 110 - Glossary
- 200 - CMS Decisions Subject to the Administrative Appeals Process
- 210 - Who May Appeal
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- 220 - Steps in the Appeals Process: Overview
- 230 - Where to Appeal
- 240 - Time Limits for Filing Appeals & Good Cause for Extension of the Time Limit for Filing Appeals
 - 240.1 - Good Cause
 - 240.2 - Conditions and Examples That May Establish Good Cause for Late Filing by Beneficiaries
 - 240.3 - Conditions and Examples That May Establish Good Cause for Late Filing by

Getting Started



Where Are Your Pain Points?

- Repetitive processes and workflows
- Claims
- Revenue cycle
- Denials
- A/R - Payments



Partners

- Your sponsors
- HFMA



What Would Bill Say?



*In fair healthcare realm, where providers dwell,
A dance of coins and claims, they knoweth well.
The revenue cycle, a tapestry grand,
Wherein providers and insurers take their stand.*

*First the patient doth seeketh care divine,
And with great hope, their ailments they resign.
To the provider's door, they make their way,
Seeking solace from pain that doth hold sway.*

*Then cometh the billing, a complex art,
As claims are crafted with utmost heart.
Codes and charges, meticulously placed,
To ensure reimbursement is embraced...*



How will AI impact healthcare finance?

Artificial Intelligence and
Healthcare Finance



- Improved Efficiency
- Fraud Detection
- Predictive Analysis
- Personalized Medicine
- Resource Allocation