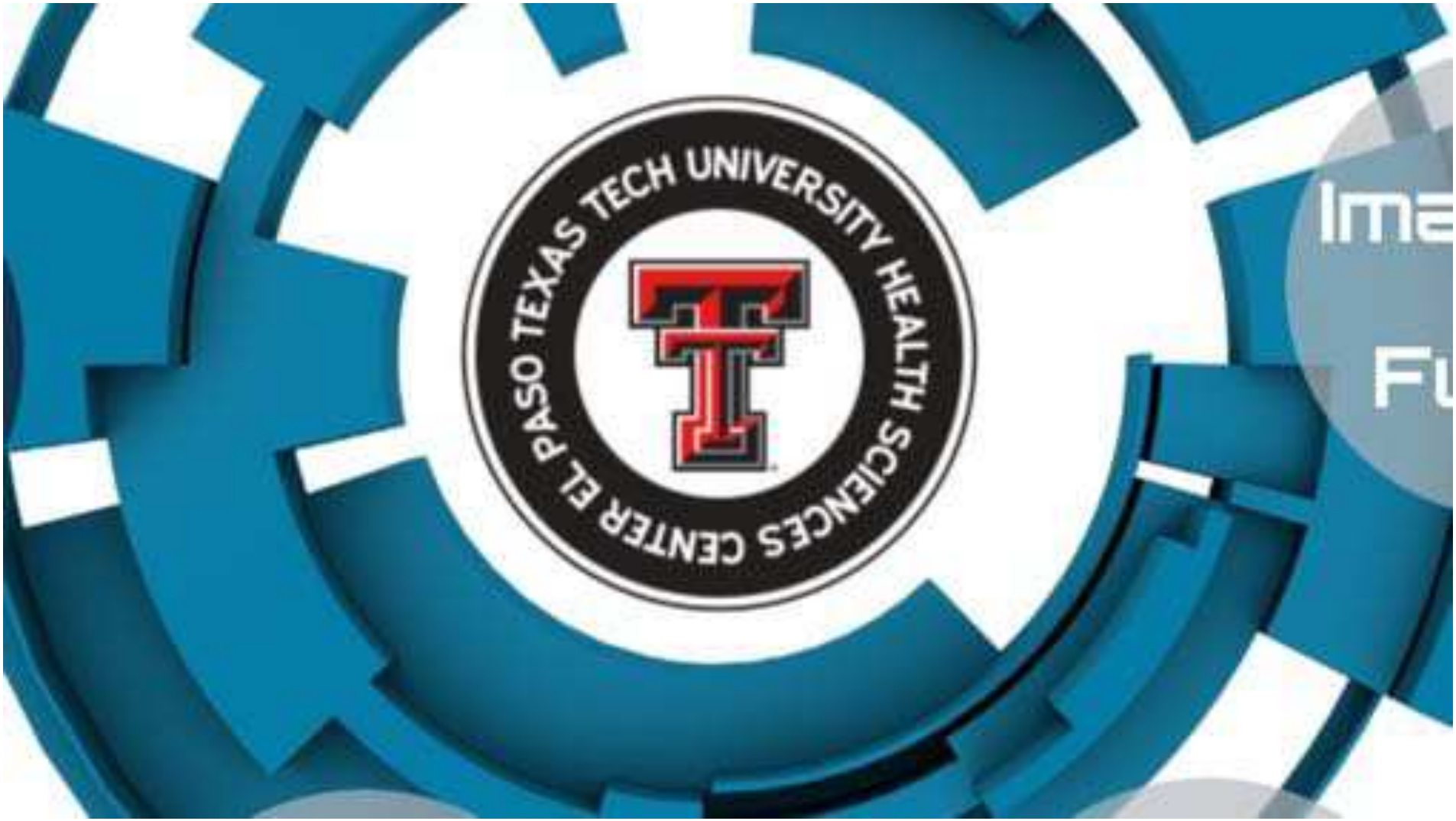
How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO


TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

CONFLICTS...

NONE in Digital Health:

- Speaker for
  - AbbVie
  - Merck
  - Gilead
  - ViiV

- I'm a glass half full guy
- Daniel Kraft vs. Elizabeth Holmes

Objectives

What is Digital Health?

Explore Dynamic Healthcare Landscape

What is the Future of Care?

H
H

H
H

How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

Where Are We Now?

Healthcare Drivers
• Healthcare is a third of total federal spending
• By 2025 it will be 40 %
• Spending for healthcare is growing faster than our economy overall as a result of:
• increased utilization,
• aging baby boomers and
• medical inflation.
• Employers, who cover half our population, will shift cost increases to the employees:
• via high deductible plans
• or curtail health insurance benefits altogether.

Healthcare's $3.2 Trillion Players
• The payers (insurance companies and businesses)
• The providers – 20%
• The hospitals – 30%
• The pharmaceuticals (drug and device manufacturers) – 10%
• The politicians
• Guess who's missing – The patients

3 Trends Shaping Healthcare Nationwide
• Health plans are seeking savings through more **cost-effective benefits, partnerships and integration,** and increased risk-sharing arrangements with providers.
• Providers are focused on delivering higher value services, with an **increased appreciation of coordinated care and an interdisciplinary team approach** that extends beyond institutional walls.
• Patients are **becoming more engaged healthcare consumers** as a result of better access to their own health information, transparency of health plan and provider ratings, and greater exposure to the true costs of care.

Americans' Ratings of Honesty and Ethical Standards in Professions

Please tell me how you would rate the honesty and ethical standards of people in these different fields -- very high, high, average, low or very low?

	Very high/High	Very low/Low	Average
	%	%	%
Nurses	84	3	13
Pharmacists	67	8	26
Medical doctors	65	7	29
Engineers	65	5	29
Dentists	59	7	34
Police officers	58	13	29
College teachers	47	18	32
Clergy	44	13	39
Chiropractors	38	13	45
Psychiatrists	38	12	45

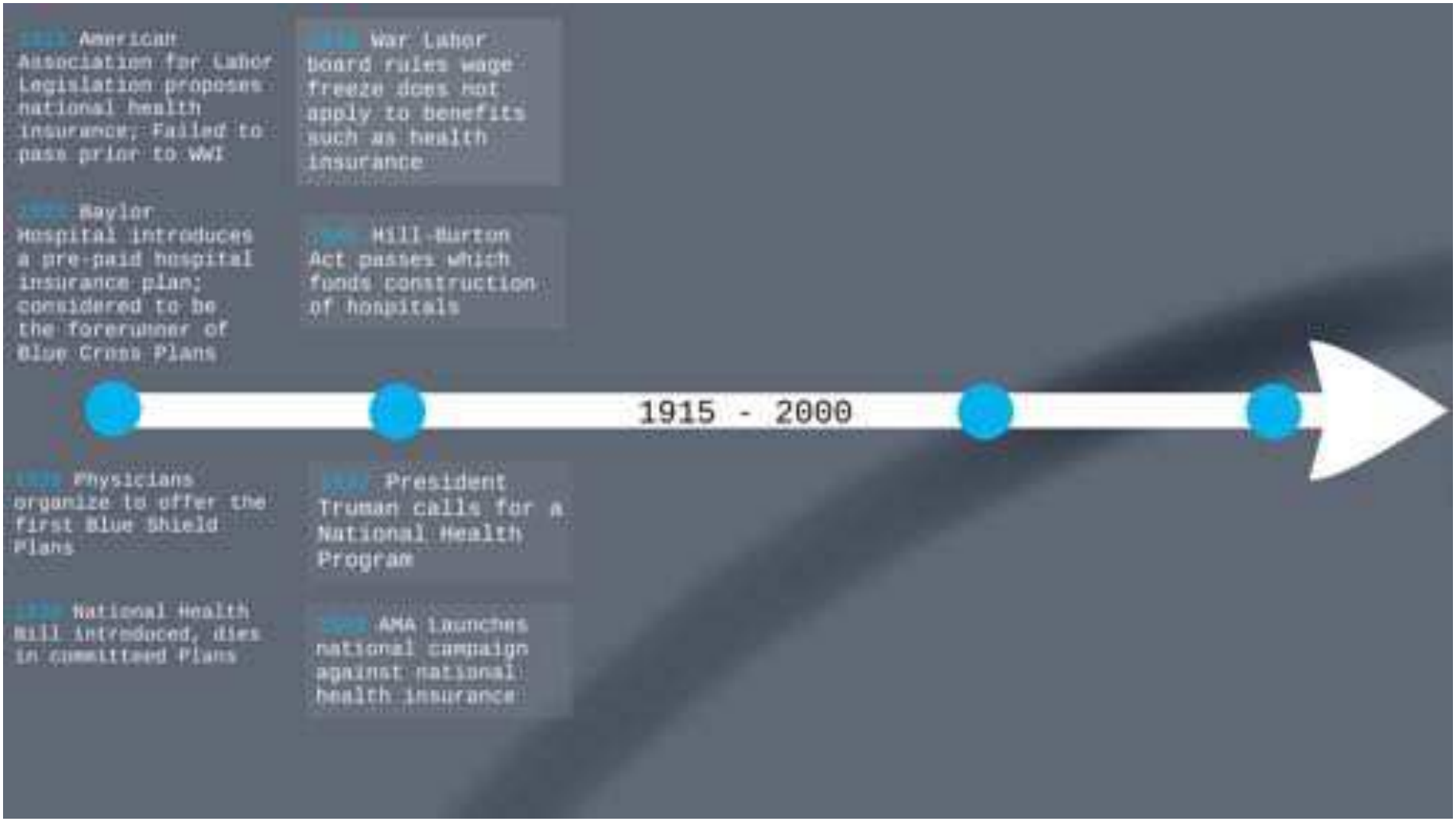
Trends Shaping Healthcare in El Paso

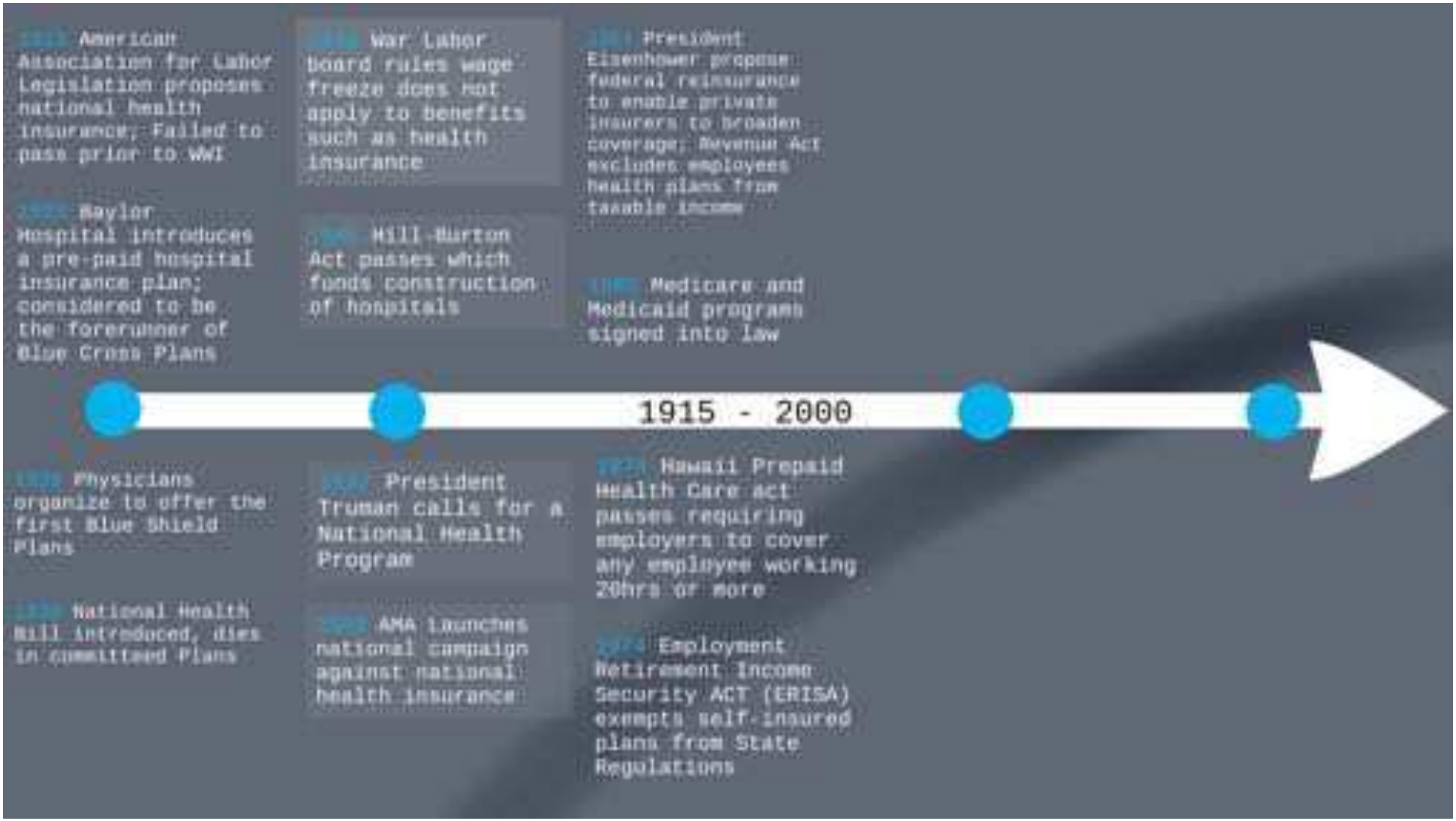
- High volume of Medicaid
- 60% of ambulatory patient care is provided by small groups; managed using **over 50 different EMR systems**.
- Provider landscape shifting rapidly:
  - THOP making multiple practice buys
  - ACOs and MSSPs entering the market to align providers
- New market forces – Privia Health or Komedix Health Care or MCCI

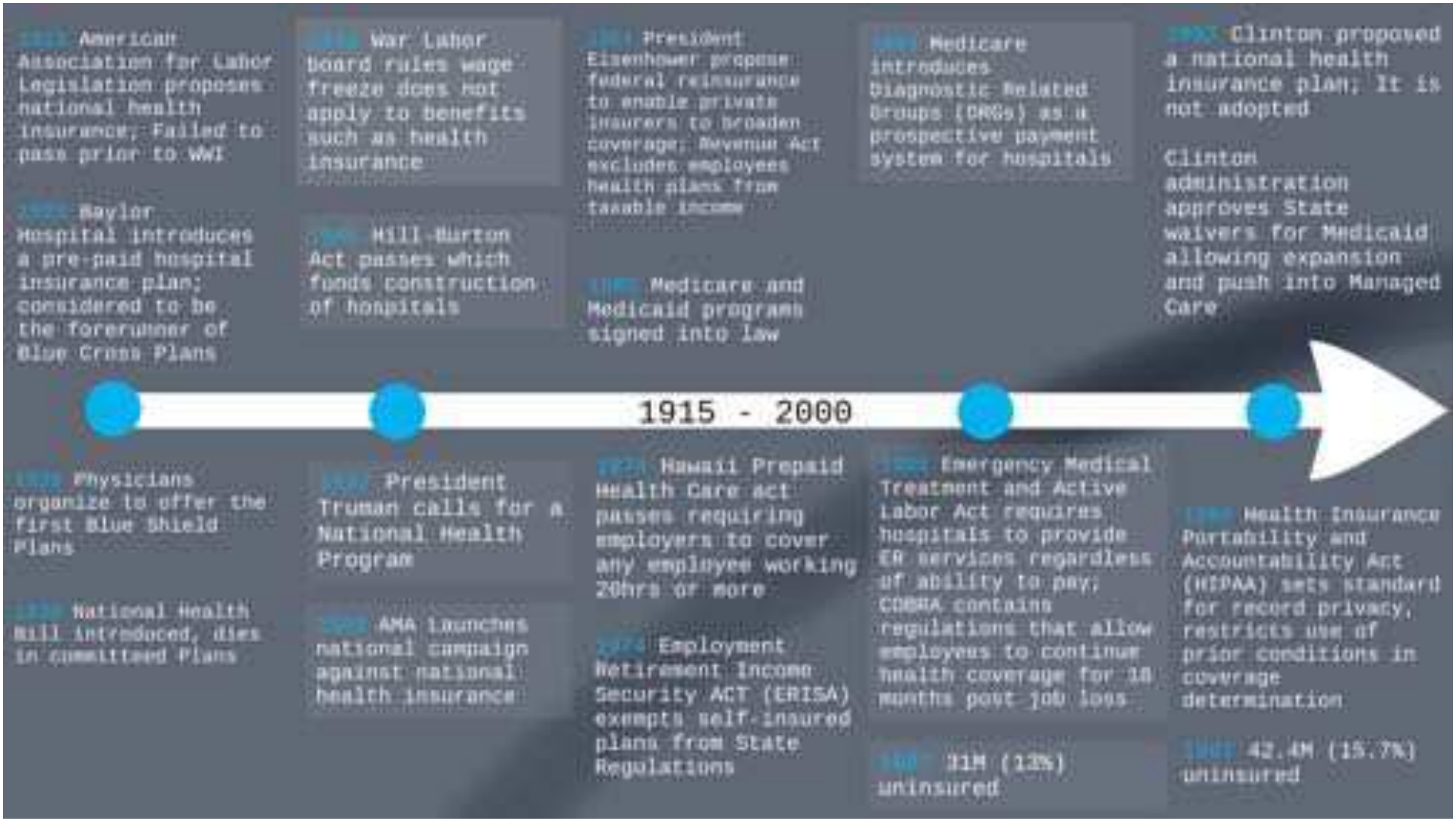
How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

How Did We Get Here?

The United State's Healthcare Journey


1915 American Association for Labor Legislation proposes national health insurance; Failed to pass prior to WWI
1929 Baylor Hospital introduces a pre-paid hospital insurance plan; considered to be the forerunner of Blue Cross Plans
1933 Physicians organize to offer the first Blue Shield Plans
1935 National Health Bill introduced, dies in committee Plans
1943 War Labor Board rules wage freeze does not apply to benefits such as health insurance
1946 Hill-Burton Act passes which funds construction of hospitals
1945 President Truman calls for a National Health Program
1949 AMA launches national campaign against national health insurance
1915 - 2000


1915 American Association for Labor Legislation proposes national health insurance; Failed to pass prior to WWI
1929 Baylor Hospital introduces a pre-paid hospital insurance plan; considered to be the forerunner of Blue Cross Plans
1933 Physicians organize to offer the first Blue Shield Plans
1935 National Health Bill introduced, dies in committee Plans
1942 War Labor Board rules wage freeze does not apply to benefits such as health insurance
1946 Hill-Burton Act passes which funds construction of hospitals
1945 President Truman calls for a National Health Program
1949 AMA launches national campaign against national health insurance
1954 President Eisenhower propose federal reinsurance to enable private insurers to broaden coverage; Revenue Act excludes employees health plans from taxable income
1965 Medicare and Medicaid programs signed into law
1974 Hawaii Prepaid Health Care Act passes requiring employers to cover any employee working 20hrs or more
1974 Employment Retirement Income Security ACT (ERISA) exempts self-insured plans from State Regulations
1915 - 2000


1915 American Association for Labor Legislation proposes national health insurance; Failed to pass prior to WWI
1929 Baylor Hospital introduces a pre-paid hospital insurance plan; considered to be the forerunner of Blue Cross Plans
1943 War Labor Board rules wage freeze does not apply to benefits such as health insurance
1946 Hill-Burton Act passes which funds construction of hospitals
1950 President Eisenhower propose federal reinsurance to enable private insurers to broaden coverage; Revenue Act excludes employees health plans from taxable income
1965 Medicare and Medicaid programs signed into law
1966 Medicare introduces Diagnostic Related Groups (DRGs) as a prospective payment system for hospitals
1993 Clinton proposed a national health insurance plan; It is not adopted
Clinton administration approves State waivers for Medicaid allowing expansion and push into Managed Care
1915 - 2000
1932 Physicians organize to offer the first Blue Shield Plans
1935 National Health Bill introduced, dies in committee Plans
1945 President Truman calls for a National Health Program
1949 AMA launches national campaign against national health insurance
1974 Hawaii Prepaid Health Care Act passes requiring employers to cover any employee working 20hrs or more
1974 Employment Retirement Income Security ACT (ERISA) exempts self-insured plans from State Regulations
1986 Emergency Medical Treatment and Active Labor Act requires hospitals to provide ER services regardless of ability to pay; COBRA contains regulations that allow employees to continue health coverage for 18 months post job loss
1987 31M (13%) uninsured
1996 Health Insurance Portability and Accountability Act (HIPAA) sets standard for record privacy, restricts use of prior conditions in coverage determination
2000 42.4M (15.7%) uninsured

Health Care System Performance Scores
Higher performing
UK
AUS
NETH
NZ
NOR
SWZ
SWE
GER
Eleven-country average
CAN
FRA
US
Lower performing

Health Care System Performance Compared to Spending

Note: Health care spending as a percent of GDP.
Source: Spending data are from OECD for the year 2014, and exclude spending on capital formation of health care providers.

The Commonwealth Fund

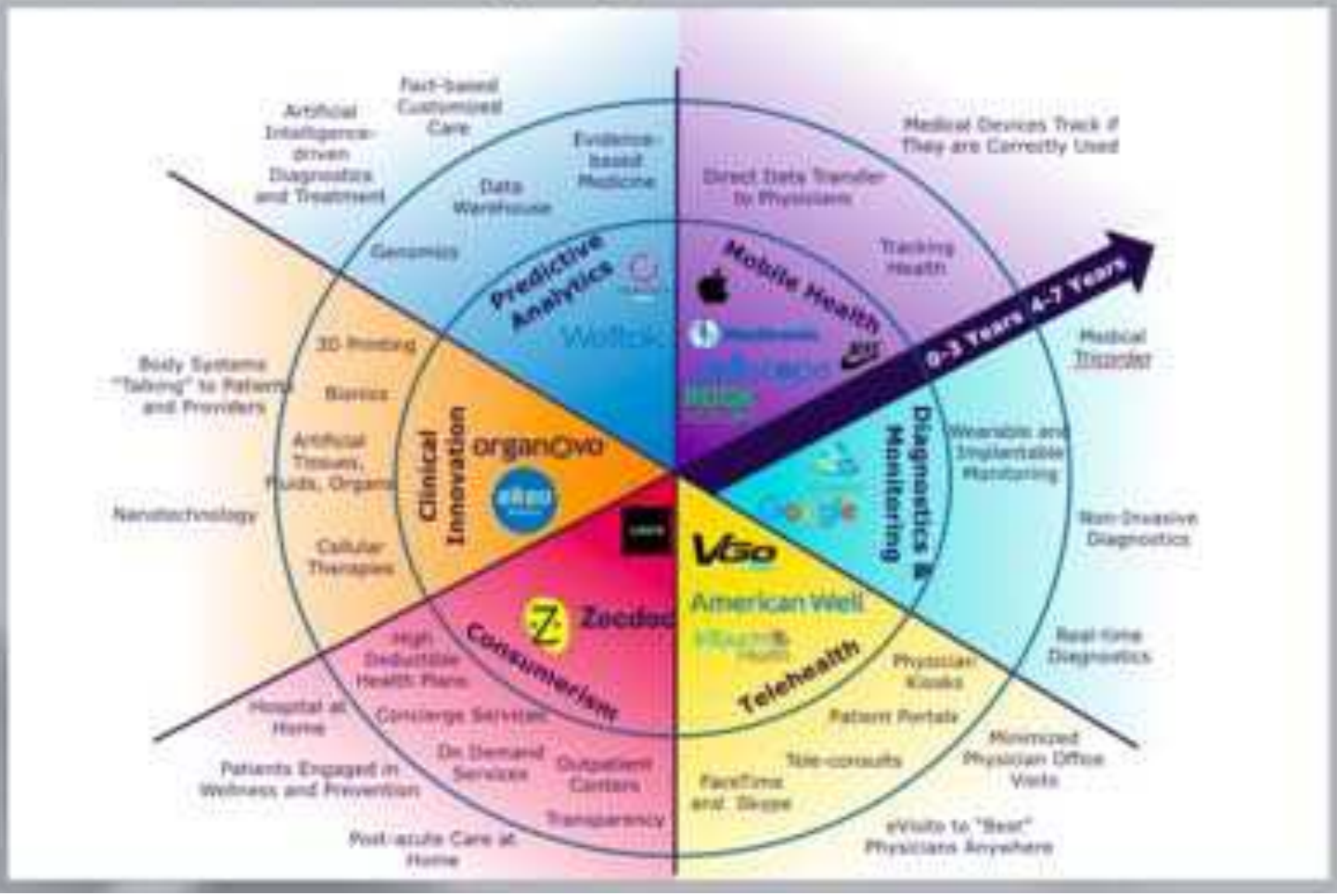
How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

A Changing Landscape

Industry in Transition From...

...to an intricate web

Innovation is changing roles and care delivery



Healthcare disruptive innovations

"... a process by which a product or service takes root initially in simple applications at the bottom of a market, and then relentlessly moves up market, eventually displacing established competitors."

–Clayton Christensen

Ambulatory Surgery Centers

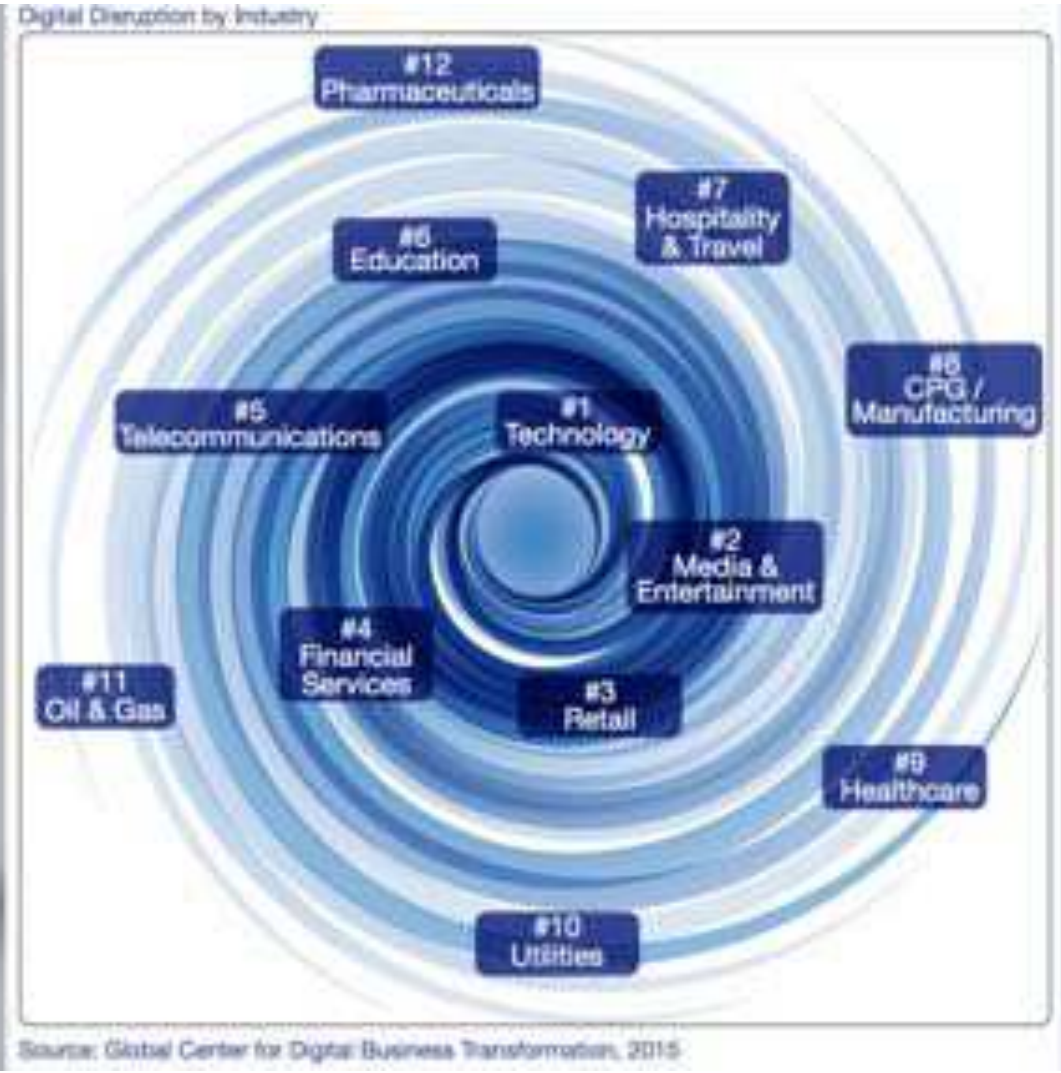
Urgent Care Centers

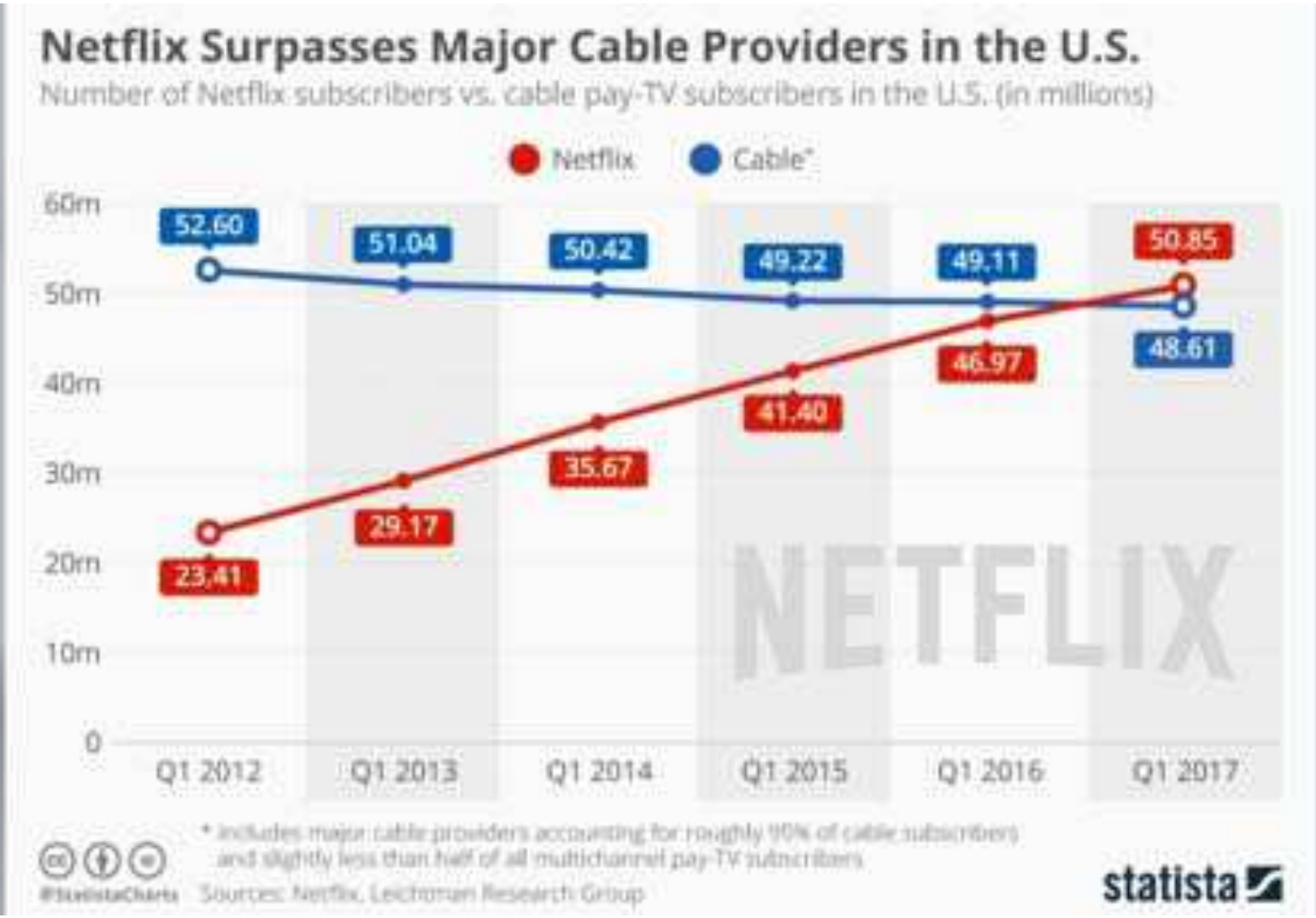
Retail Clinics

ZocDoc

ZocDoc for Scheduling

Notable Disruptive Innovations


Digital Disruption by Industry
#12
Pharmaceuticals
#7
Hospitality
& Travel
#8
Education
#6
CPG /
Manufacturing
#5
Telecommunications
#1
Technology
#2
Media &
Entertainment
#4
Financial
Services
#11
Oil & Gas
#3
Retail
#9
Healthcare
#10
Utilities
Source: Global Center for Digital Business Transformation, 2015


Netflix Surpasses Major Cable Providers in the U.S.
Number of Netflix subscribers vs. cable pay-TV subscribers in the U.S. (in millions)
Netflix
Cable*
60m
50m
40m
30m
20m
10m
0
52.60
51.04
50.42
49.22
49.11
48.61
50.85
46.97
41.40
35.67
29.17
23.41
Q1 2012
Q1 2013
Q1 2014
Q1 2015
Q1 2016
Q1 2017
NETFLIX
* includes major cable providers accounting for roughly 90% of cable subscribers and slightly less than half of all multichannel pay-TV subscribers
Sources: Netflix, Leichman Research Group
statista

THE
DIGITAL
FUTURE OF
HEALTHCARE

exit calm
THE
FUTURE
ISN'T
WHAT
IT USED
TO BE

Convenience is Winning
Taxis
Travel
Entertainment
Restaurants
Consumer products
Healthcare
KAYAK
StubHub
OpenTable
amazon.com

"We believe Apple's HealthKit will revolutionize how the health industry interacts with people. We are proud to be at the forefront of this innovative technology with the Mayo Clinic app."
Dr. John H. Noseworthy, CEO, Mayo Clinic

Health Records
All Records
Allergies
Clinical Vitals
Conditions
Immunizations
Lab Results
Medications
Procedures
January 4th, 2018
Peanut Allergy
Albuterol HFA 90mcg
Influenza
HDL cholesterol

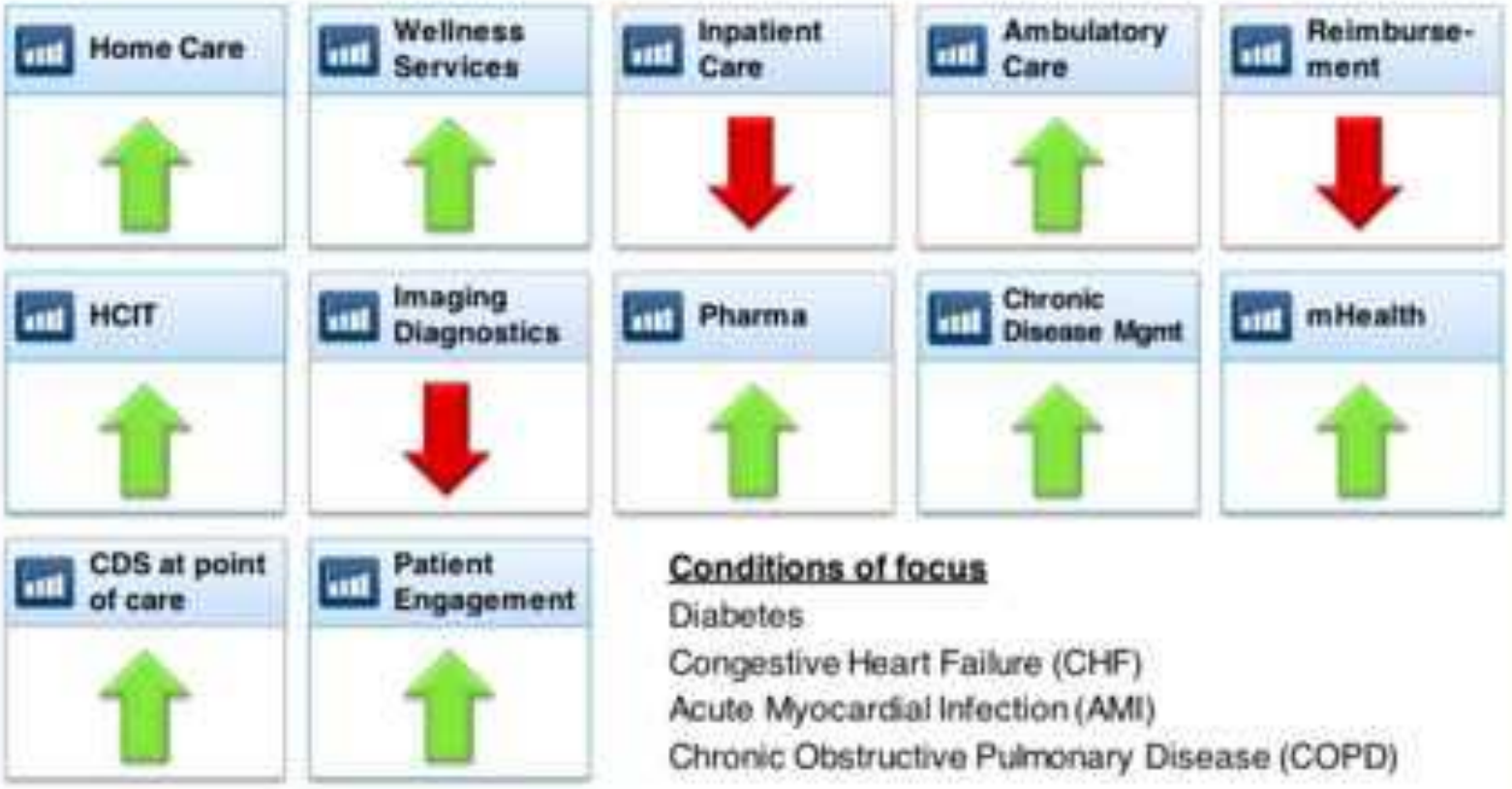
Watch the Cloud 9 platform in action
providers
physicians
hospitals
patients

Watch the Cloud 9 platform in action
providers
physicians
hospitals
patients

Lisa Alberino
KardiaMobile.com

Lisa Alberino
KardiaMobile.com

Winners & Losers in Digital Health?



The Physician Angle

- Optum acquires DaVita Medical Group for $4.9B
- Doubles size of Optum's owned physician enterprise to ≈60K
- Largely MA-driven model sees 1.7M patients/year in 300 clinics, 35 UCCs[1] and six surgery centers

The Post-acute Angle

- Humana to acquire Kindred for $738.2M
- Co-investing with private equity firms; will initially own 40% of Kindred
- Largest home health and hospice operator in US; operates 77 LTCHs[2] and 19 rehab hospitals

The Pharmacy Angle

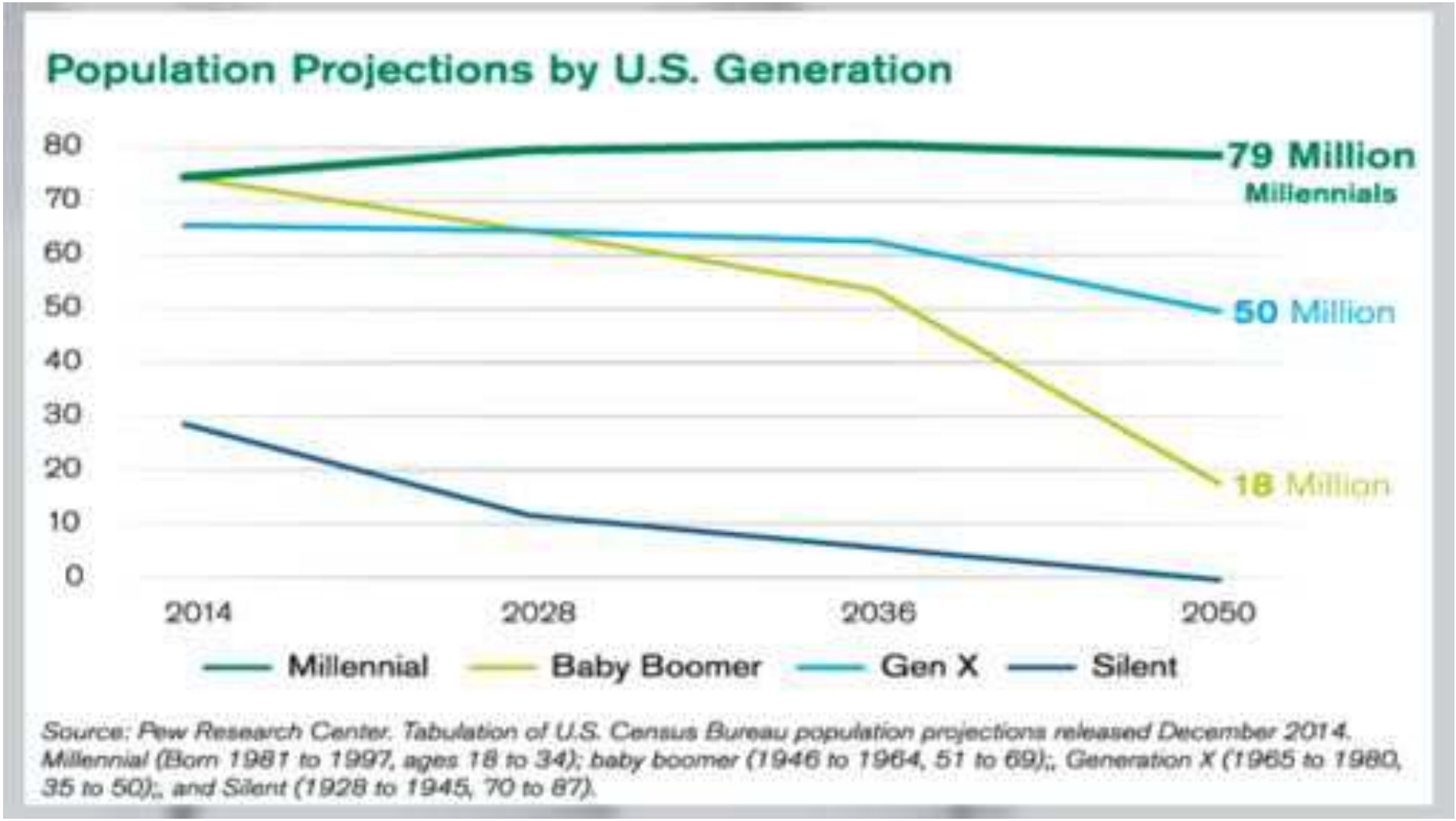
- CVS to acquire Aetna for $67.5B
- Largest drugstore chain in US; third largest commercial insurer
- Will combine retail clinics, pharmacy and other health services into new care management centers

Courtesy of DIST Healthcare 2018

How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

The Future
NEXT EXIT

Courtesy of Circle Square 2018


Population Projections by U.S. Generation
80
70
60
50
40
30
20
10
0
2014
2028
2036
2050
79 Million
Miliennials
50 Million
18 Million
Millennial
Baby Boomer
Gen X
Silent
Source: Pew Research Center. Tabulation of U.S. Census Bureau population projections released December 2014.
Millennial (Born 1981 to 1997, ages 18 to 34); baby boomer (1946 to 1964, 51 to 69);, Generation X (1965 to 1980,
35 to 50);, and Silent (1928 to 1945, 70 to 87).

DIGITAL HEALTH ADOPTION

Use of digital health tools by age

ROCK HEALTH

MILLENNIAL
18-34

40% own a wearable

48% go online to find a physician

34% select a provider based on online reviews

42% have sought medical care or advice over **live video**

GEN X
35-54

26% own a wearable

38% go online to find a physician

21% select a provider based on online reviews

31% have sought medical care or advice over **text message**

BABY BOOMER
55+

10% own a wearable

23% go online to find a physician

8% select a provider based on online reviews

56% have sought medical care or advice over the **phone**

Source: Rock Health 2016 consumer survey data (n = 4,215)

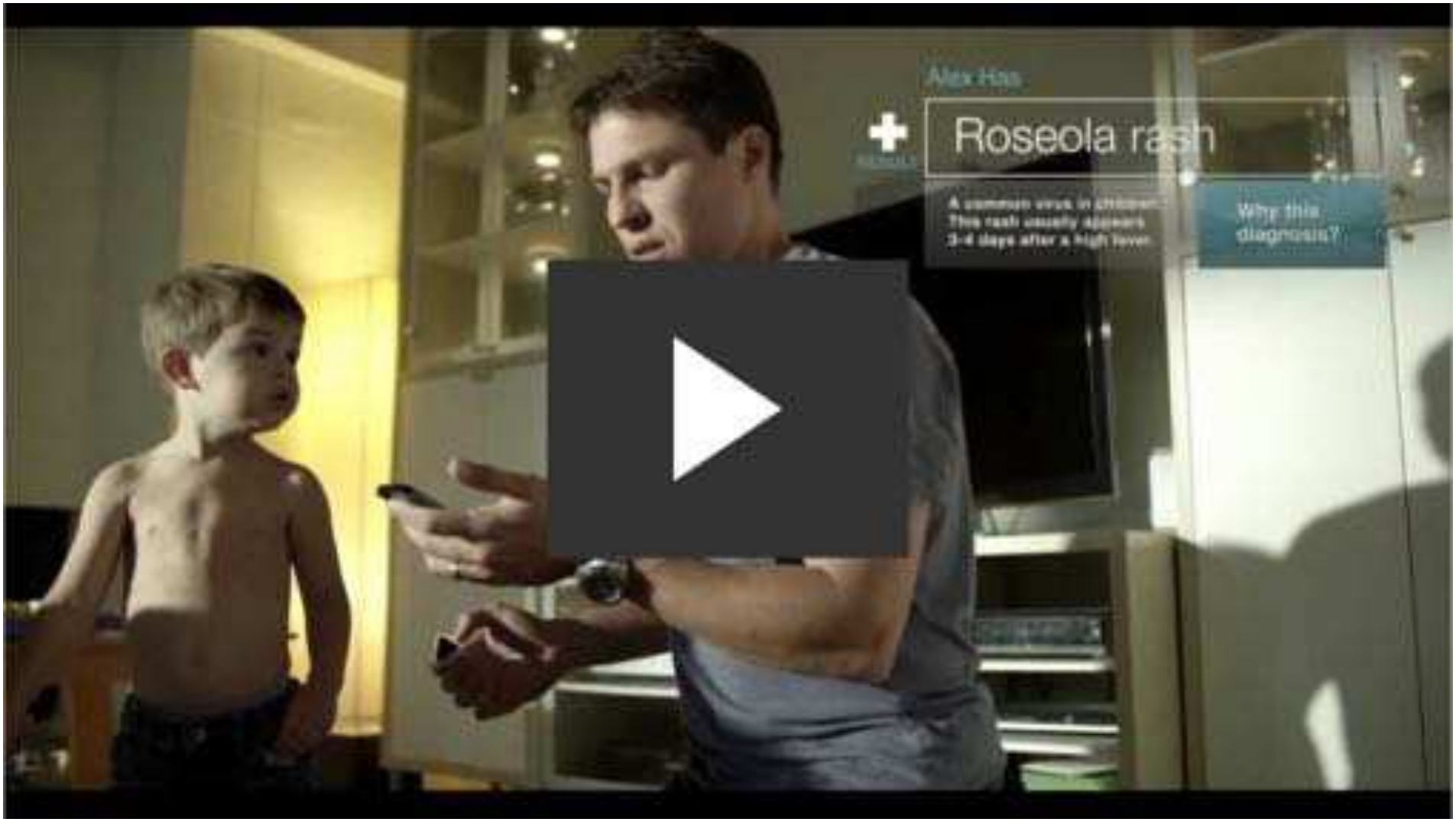
Delay or Forgo Care?
First year after HDHP[1] rollout:
42% Reduction in all spend under deductible
18% Decline in physician office visits
20% Lower drug spend
10% Decline in preventive care, even when fully covered
Conflict with population health strategies
Shop on Price?
Patients shopping for care:
48% Attempt to find price
53% Report saving money after price comparison
70% Believe higher price not associated with better quality
Share lost to low-cost non-hospital providers
Fail to Pay?
When facing bills for care:
44% Cannot produce $2000 in 30 days[2]
1 in 3 Kansas City residents with medical debt in collections
62% Personal bankruptcies due to medical debt
Rising bad debt and uncompensated care
Courtesy of GIST Healthcare 2018

App enabled engagement

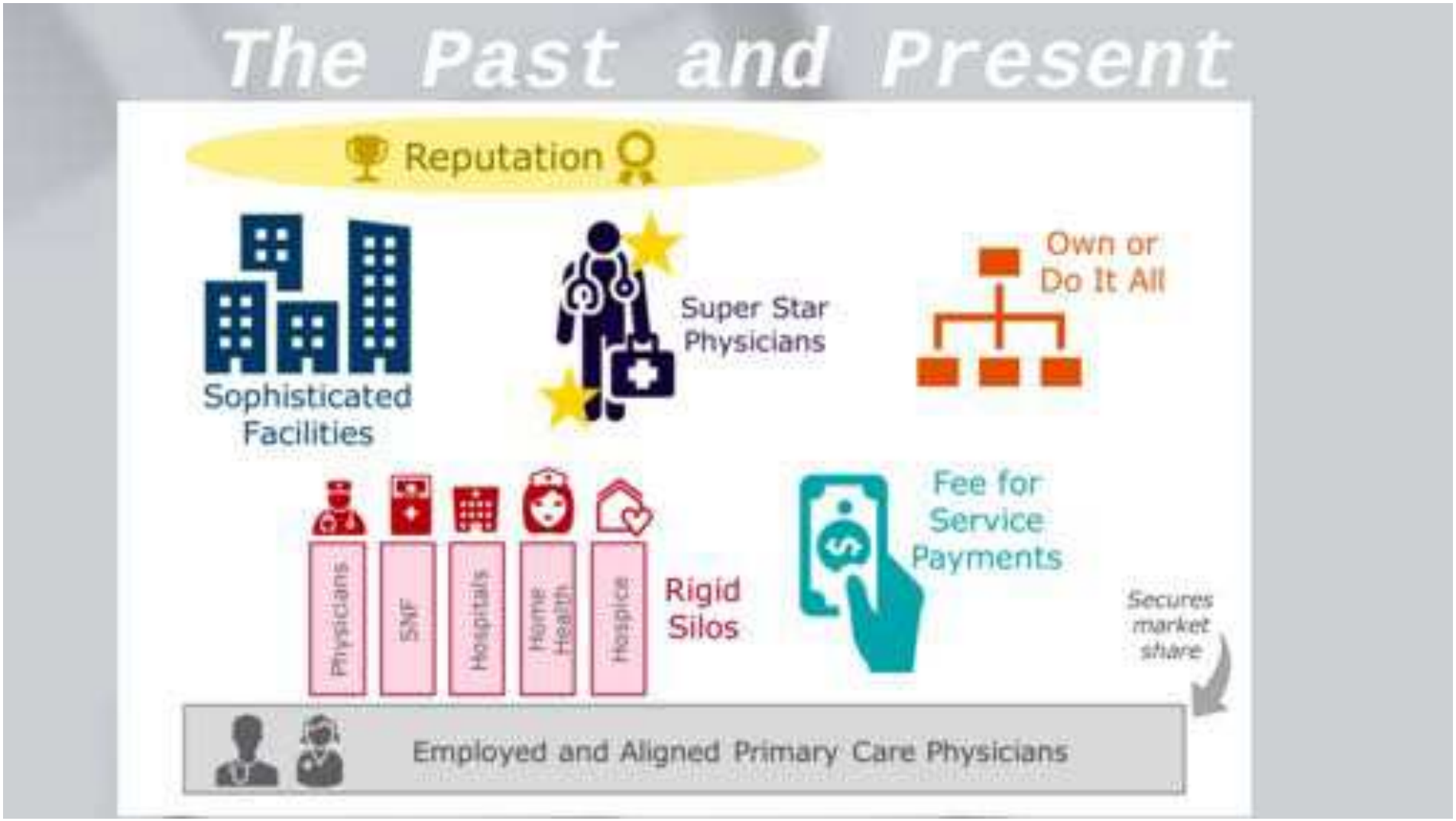
How is digital health **disrupting** the healthcare market?

"Consumerization of Healthcare"

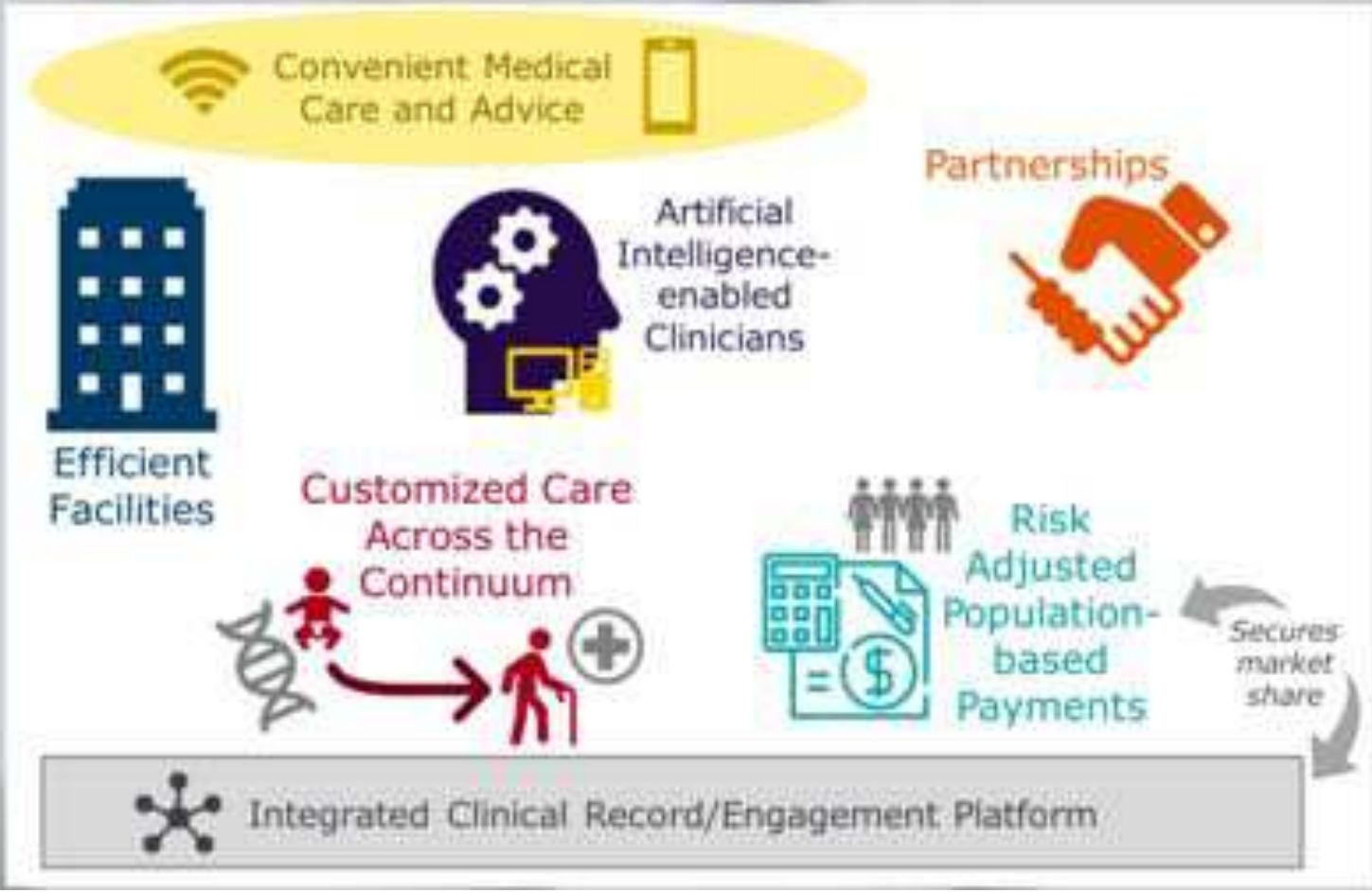
Roseola rash


Alex Has
Roseola rash
A common virus in children
This rash usually appears
3-4 days after a high fever
Why this diagnosis?

ROCK
HEALTH
WIWE
And given them cutting edge AI technology
EyeQue
tytocare
END OF THE STETHOSCOPE?

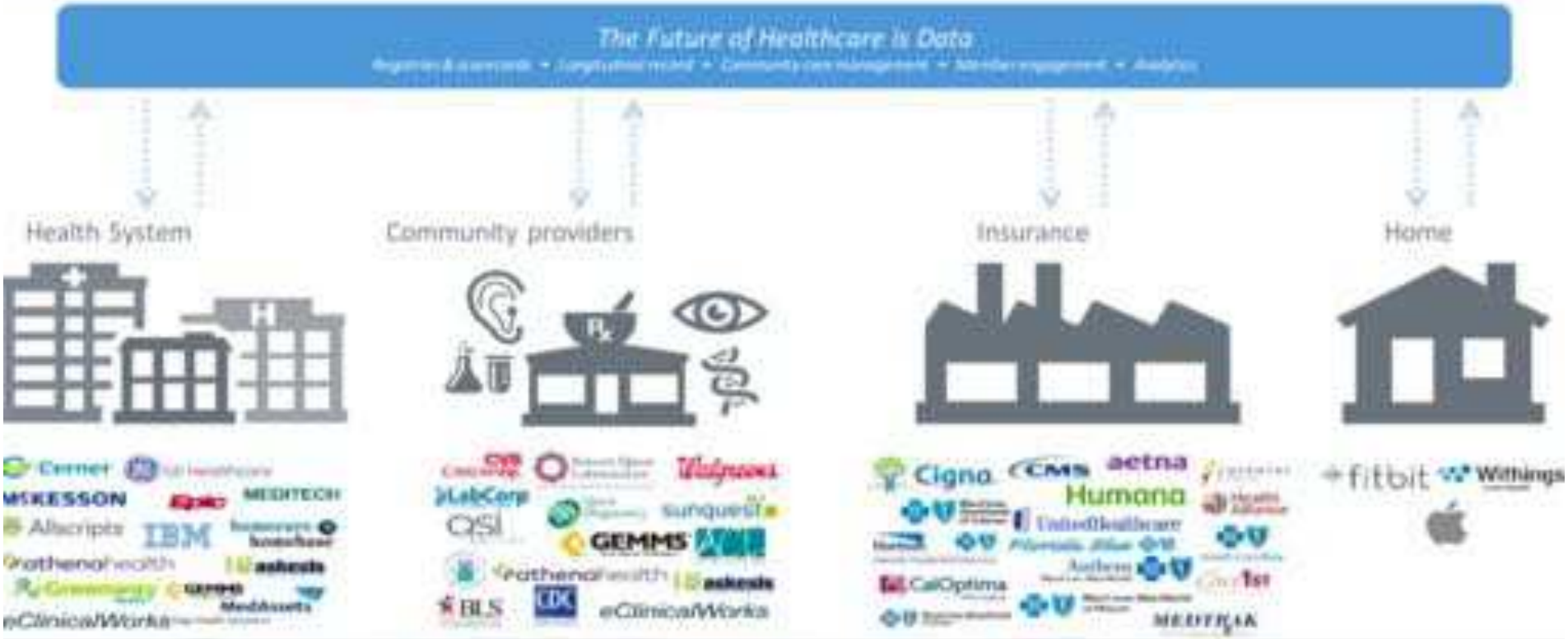

The Past and Present
Reputation
Sophisticated Facilities
Super Star Physicians
Own or Do It All
Physicians
SNF
Hospitals
Home Health
Hospice
Rigid Silos
Fee for Service Payments
Secures market share
Employed and Aligned Primary Care Physicians

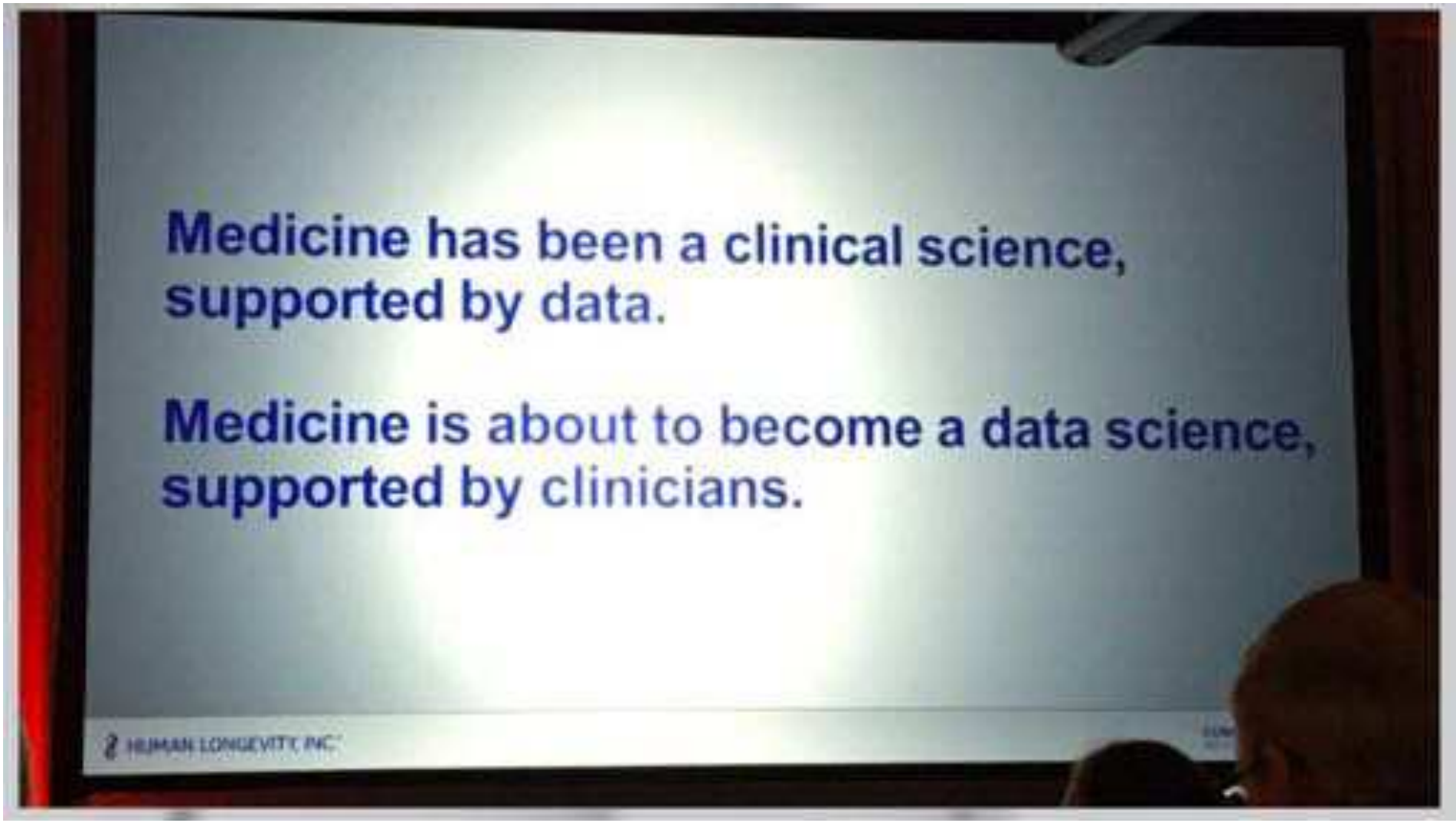
The Future


Convenient Medical Care and Advice
Partnerships
Artificial Intelligence-enabled Clinicians
Efficient Facilities
Customized Care Across the Continuum
Risk Adjusted Population-based Payments
Secures market share
Integrated Clinical Record/Engagement Platform

NEWS
WHOLE FOODS

Interoperability




Medicine has been a clinical science, supported by data.
Medicine is about to become a data science, supported by clinicians.
HUMAN LONGEVITY, INC.

Humility

Americans' Ratings of Honesty and Ethical Standards in Professions

Please tell me how you would rate the honesty and ethical standards of people in these different fields -- very high, high, average, low, or very low?

	Very high/High	Average	Very low/Low
	%	%	%
Nurses	82	16	2
Military officers	71	24	3
Grade school teachers	66	27	5
Medical doctors	65	31	4
Pharmacists	62	32	6
Police officers	56	32	12
Day care providers	46	43	7
Judges	43	41	15
Clergy	42	41	13
Auto mechanics	32	53	14

High
Company and product maturity
Low
Low
Potential for disruption
High
healthcare clinic
minute clinic
The Little Clinic
Walmart care clinic
MDVIP
American Well
MDLIVE
TELADOC
one
DOCTOR ON DEMAND
中国平安 PINGAN
PURSUANT HEALTH
higi
heal
talkspace
pager
PresenceLearning
Iagnosis
Courtesy of Circle Square 2018

How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

Contact Details

How do People Find You?

ogechika.alozie@ttuhsc.edu
@ogeisimo

IRIS
Information Retrieval
and Interaction Support
03/24/2020

IRIS
Information Retrieval
and Interaction Support
03/24/2020

How did we get here?
A Changing Landscape
Where we are Now
Imagining the Future
Objectives
Thank you
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO