Health Center 2030:
5 Critical Skills for Leading the Digital Transformation

June 18, 2024

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Ingenium Digital Health Advisors

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NATIONAL ASSOCIATION OF
Community Health Centers ®

IngeniumDigitalHealth.com

About Christian
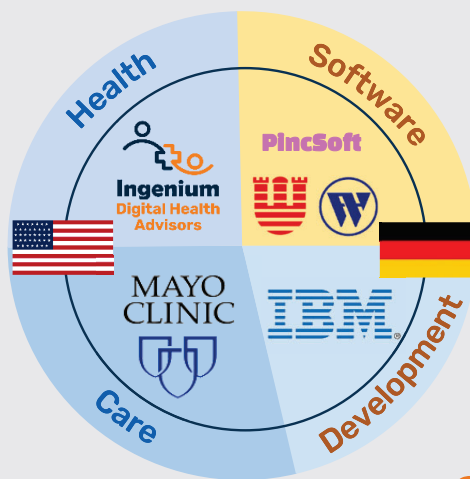
35+ years

"Optimizing Service Delivery"

Leading the
Digital
Transformation

Digital Transformation Buzzwords

TeleHealth Virtual Care

Patient Portal

SmartPhone Health Apps

RPM: Remote Physiological Monitoring

Virtual Reality

Digital Therapeutics

Augmented Reality

AI: Augmented Intelligence

ChatBots

Automated Transcriptions

EMRs EHRs

TeleEducation

Personal Health Records
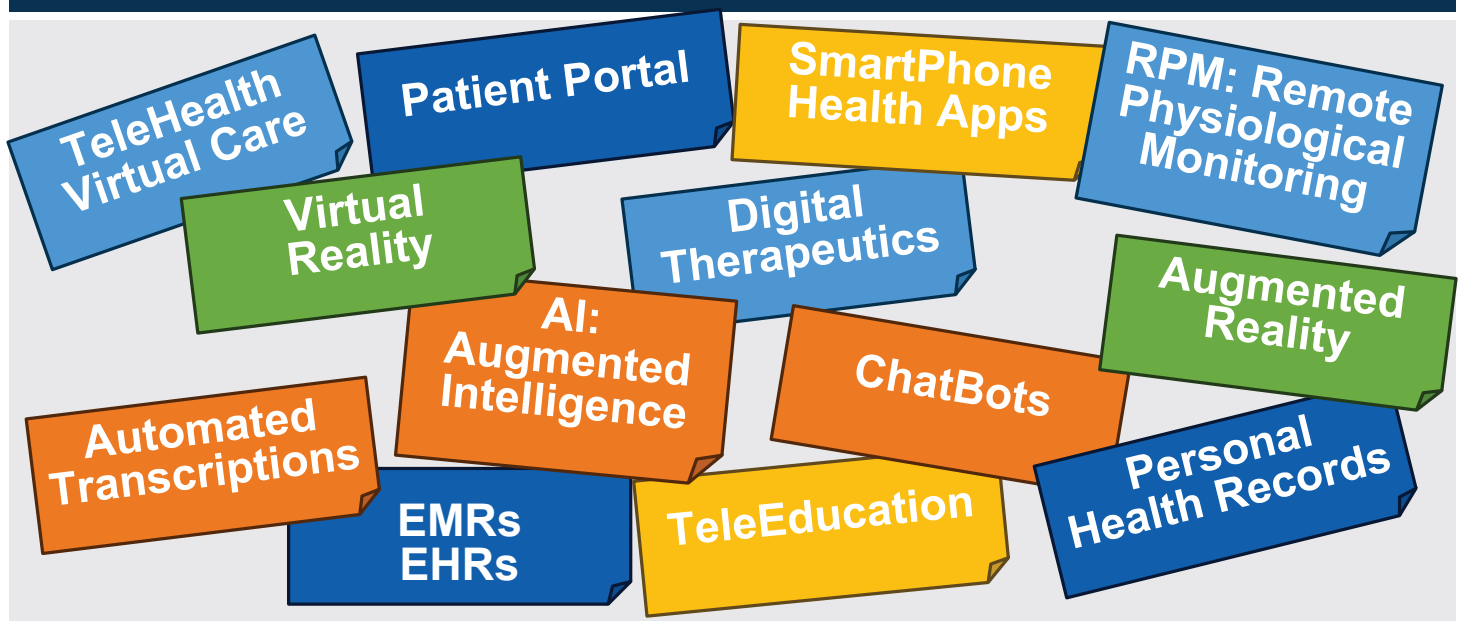
5 Stages of Digital Transformation

One Aspect:

With **Virtual First**
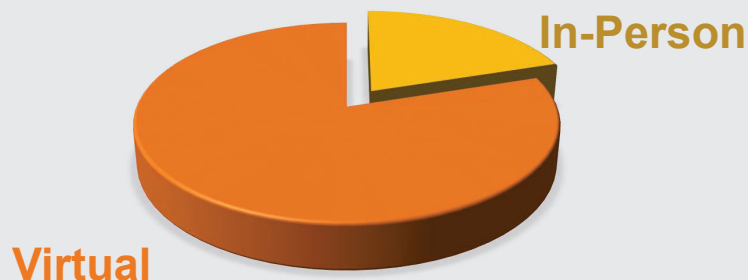To **Virtual Mostly**

Virtual First:

The first level of care
provided by a healthcare professional
is virtual

video visits | secure messaging | data review

Virtual Mostly:

The majority of
outpatient care (80%+)
is delivered virtually.

In-Person

Virtual

Why?

- ❑ Because it's expected of us.
- ❑ Because we can.
- ❑ Because it's feasible.
- ❑ Because it's viable.

⟹ *Alas, we must.*

The Modern Healthcare Consumer

Shift Happens

25 years ago: Finance	20 years ago: Commerce	15 years ago: Communication
• Online Banking • Online Trading • Online Payments • Currency Xfers • 24x7	• Amazon • BestBuy, JCPenney • Uber, Lyft • Kayak, Expedia • AirBnB • 24 x 7	• Facebook, Twitter, Snapchat • Messenger, WhatsApp, SMS/Texting • Facetime, Skype • 24 x 7

Meeting the Needs of the Modern Healthcare Consumer

Academic Medical Centers

Concierge Medicine

Large Group Practices

Quality

Confidence

Convenience

Future Health Center Leaders

Trusted PCP Health Centers

Value

Online Clinics Retail Clinics
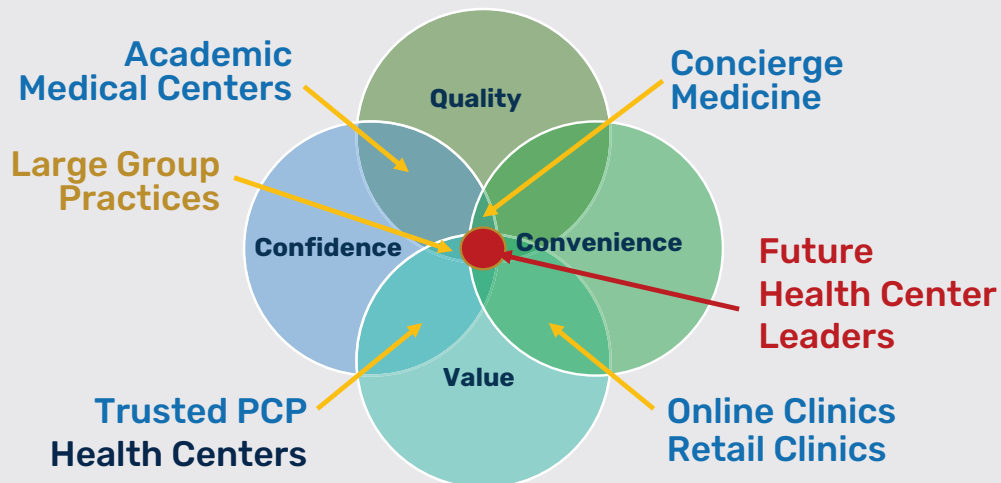
US Telehealth Users* Who Are Planning to Use Telehealth Services, by Generation, Oct 2021
% of respondents in each group

Gen Z (18-24)

73%	8%	20%

Millennials (25-40)

83%	5%	12%

Gen X (41-56)

68%	9%	24%

Baby boomers (57-75)

51%	17%	33%

■ Yes ■ No ■ Not sure

*Note: in the next 12 months; numbers may not add up to 100% due to rounding; *94% were telehealth users and 6% were potential telehealth users selected to align with the US population on the criteria of age*
Source: Insider Intelligence, "US Telehealth Trends 2022," Jan 2022
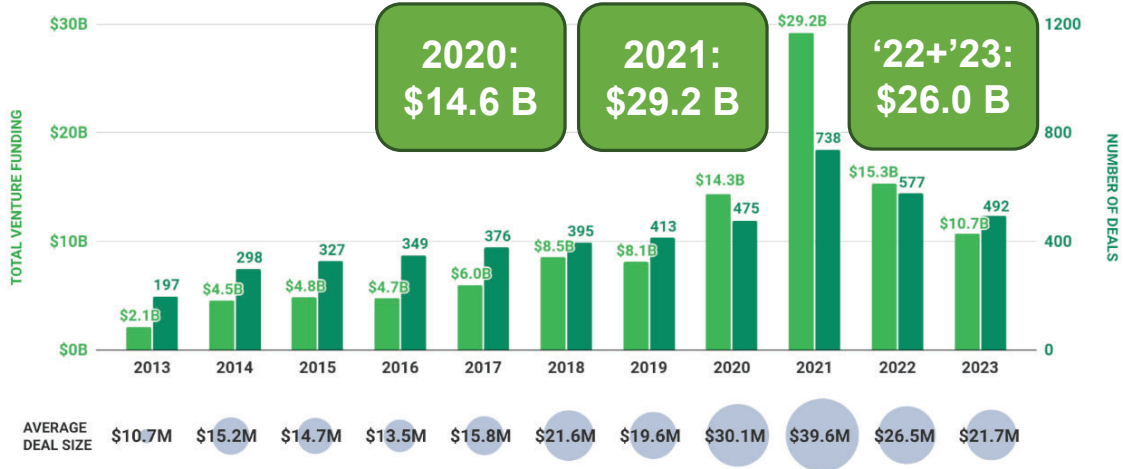
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InsiderIntelligence.com

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The Digital Health Innovation Avalanche

Digital Health Funding: $100B+

U.S. DIGITAL HEALTH FUNDING AND DEAL SIZE
2013-2023

2011-2023: ~$110 B   ROCK HEAL+H

2020: $14.6 B   **2021: $29.2 B**   **'22+'23: $26.0 B**

| Year	Total Venture Funding	Number of Deals	Average Deal Size
2013	$2.1B	197	$10.7M
2014	$4.5B	298	$15.2M
2015	$4.8B	327	$14.7M
2016	$4.7B	349	$13.5M
2017	$6.0B	376	$15.8M
2018	$8.5B	395	$21.6M
2019	$8.1B	413	$19.6M
2020	$14.3B	475	$30.1M
2021	$29.2B	738	$39.6M
2022	$15.3B	577	$26.5M
2023	$10.7B	492	$21.7M

Note: Includes U.S. deals >$2M
Source: Rock Health Digital Health Venture Funding Database; data through December 31, 2023

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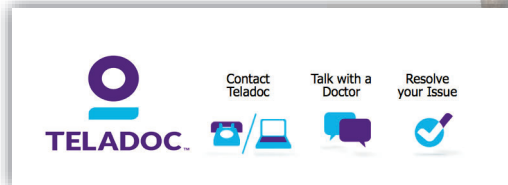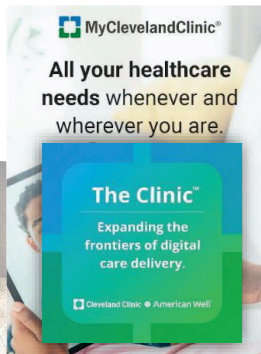
CB INSIGHTS Digital Health 150 — 2022

Care coordination & collaboration
alinea health, Auxa Health, Buddy Healthcare, CareAlign, dina, EON, HEALTH [at] SCALE TECHNOLOGIES, Oath, rimidi, TCARE

Clinical intelligence
abridge, ARTIQ, ImmersiveTouch, iodine, MindTrace, OVERJET, theator, VIDEA HEALTH

Home health & wellness
cala, GReeTY, doccla, Embr Labs, Evvy, MedArrive, Nymbl, suvera, sword

Computer-aided imaging
BrainSightAI, CEREBRIU, clarius, DIGITAL DIAGNOSTICS, endoluxe, harrison.ai, ITERATIVE HEALTH, SUBTLE MEDICAL, SWIFT, viz.ai

Interoperability, data, & analytics
AETION, Availity, covera health, embold HEALTH, GenXys, HospitalIQ, J2 HEALTH, lifebit, Lightbeam Health Solutions, LYNXCARE, nubentos, particle, REDOX, rune labs, SEQSTER, SOCIALCLIMB, TRUVETA, xealth

Digital front door & patient engagement
Careology, CipherHealth, Healthee, heartbeat, hyro, kinetik, KODAHEALTH, maya MD, Nodal, Playback Health, REDI HEALTH, Strida, univfy, vinehealth, WILDFLOWER, XP HEALTH

Virtual care
bloom care, BRAVE, EQUIP, EQUUM MEDICAL, exseed, Fourier Intelligence, Jasper, LEVY HEALTH, neolth, NUVO, recoveryone get back out there, Renalis, SUMMUS, THOUGHTFULL, vivante HEALTH, wysa

Digital pharmacy & DME
9am Health, HouseRx

Workflow automation & digitization
CertifyOS, element5, Foldhealth, hint health, OpenLoop, OpenMedical, Rhyme, Vytalize

Screening, monitoring, & diagnostics
alio, Aural Analytics, BABYSCRIPTS, biospectal, casana, CLOUD DX, COFACTOR genomics, Eko, ellipsis HEALTH, ENLITIC, galileo, GENOMENON, hyfe.ai, IDOVEN, Infermedica, ixlayer, KINTSUGI, L7 INFORMATICS, Ligence, MOBIO INTERACTIVE, NEUROVINE, Optellum, podimetrics, prevent biometrics, Qventus, Skin analytics, spect, Starling

Digital therapeutics
AMALGAM AppliedVR, eeme, GYENNO, MEDRhythms, metaMe Health, Rocket VR Health

Clinical trials tech
TOPOGRAPHY HEALTH, UNLEARN, xCures

Hybrid care
Caraway, homeward, kindbody, MAVEN, Nest Health, SalvoHealth, sami, tia, vori health, Waymark

Revenue cycle management
enter, JANUS, Lyfegen, soda health

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GIMBHI Market Map

Interactive Software
Koa Health, unmind, oxfordvr, myStrength, TEACHTOWN, psious, Selfapy, HYPNORR, otsimo, SilverCloud

Patient Tools
MedCircle, LUCID LANE, zenklub, PATH, Headway, spring health, WeRecover, sondermind, Ophelia, ovia health, Advekit, COPE NOTES, Cerebral, HALCYON HEALTH, MAVEN, youturn

Measurement, Testing, & Diagnostics
mindstrong, UniFa, Aural Analytics, SONDE, Owl Insights, SAVONIX, VocalisHealth, ALTOIDA, neurotrack, lark, Lineagen, rune labs, BrainCheck, GENOMIND, Darmiyan, bark, WINTERLIGHT, ellipsis health, nQ Medical

Provider Tools
NEUROFLOW, axial Healthcare, osmind, Alma HEALTH, Healthify, Cogstate, MyndYou, Quartet, Eleos, LINUS HEALTH, blueprint, manatee, valant

Digital Therapeutics
Big Health, holmusk, Palo Alto Health Sciences, Click Therapeutics, dreem, Limbix, CureApp, AKILI, The Learning Corp, luminopia, Quit Genius, cognoa, metaMe Health, PEAR, happify HEALTH, omada, kaia, Neurolief, LUCINE

Medical Device
quadrant biosciences, kernel, BioDirection, sana health, CALA HEALTH, Neuronetics, NeuroOne, comfort, ybrain, NEURALINK, NeuroSigma, NE

Tech-Enabled Treatment Platform
two chairs, tia Health, Meru Health, eleanor health, pya, coa

Telehealth
Brightside, dialogue, talkspace, mindoula, Workit Health, ginger, snapclarity, learntolive, tava health, MINDLER, FOREFRONT TELECARE, Boulder, nocd, safespace, Uwill, ahead, Springtide, vida wayForward, DOTCOM THERAPY, Lyra, Snaptive, Sprout

Wellness
Modern Health, meQuilibrium, bellabeat, MIGHTIER, Calm, MEDITOPIA, SIMPLE HABIT, youper, headspace, BLOOM, Deep Meditate, SUPERBETTER, GRIT DIGITAL HEALTH, remrise, fastic, NEURONATION, silk + SONDER, TEN PERCENT HAPPIER, Endel, LIVE, LIFESPEAK, The Riveter, WAVE, InsightTimer, shine

GIMBHI

Virtual Care Possibilities

Beyond Video Visits

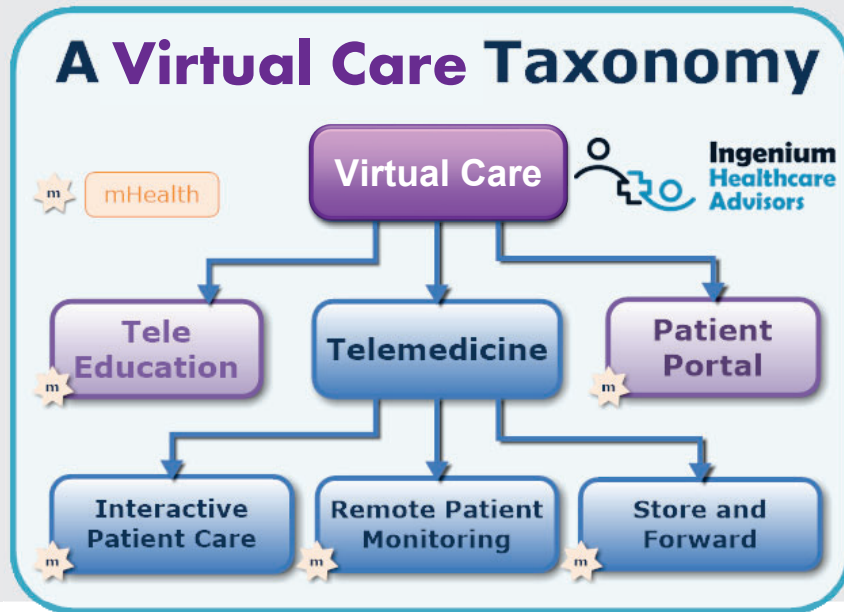## Everybody agreed, until somebody defined it...

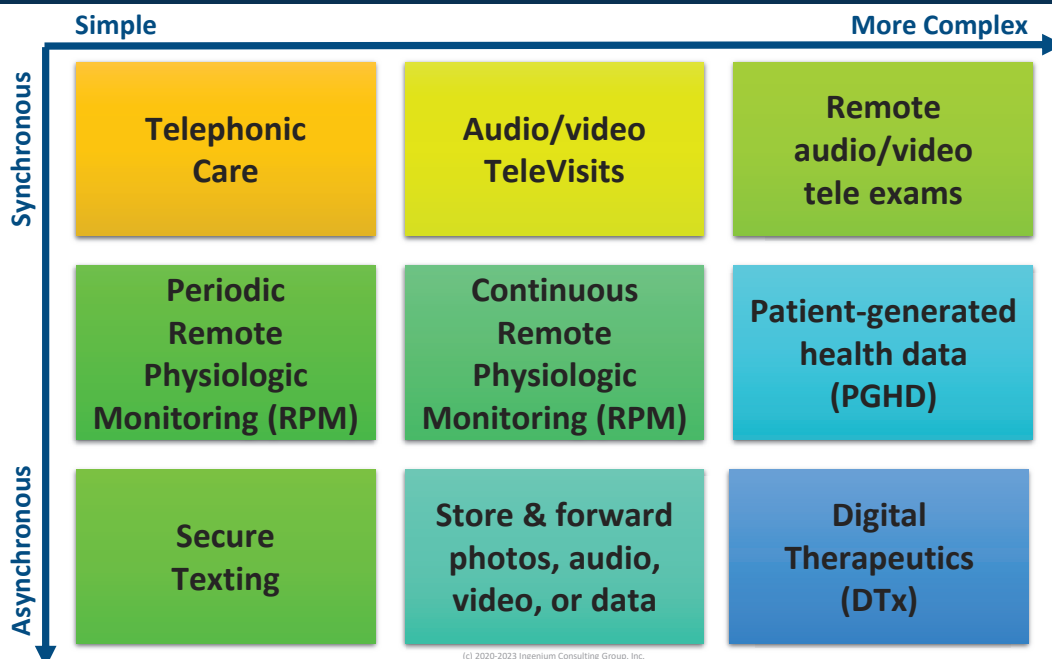### Telehealth
Delivering Care at a Distance
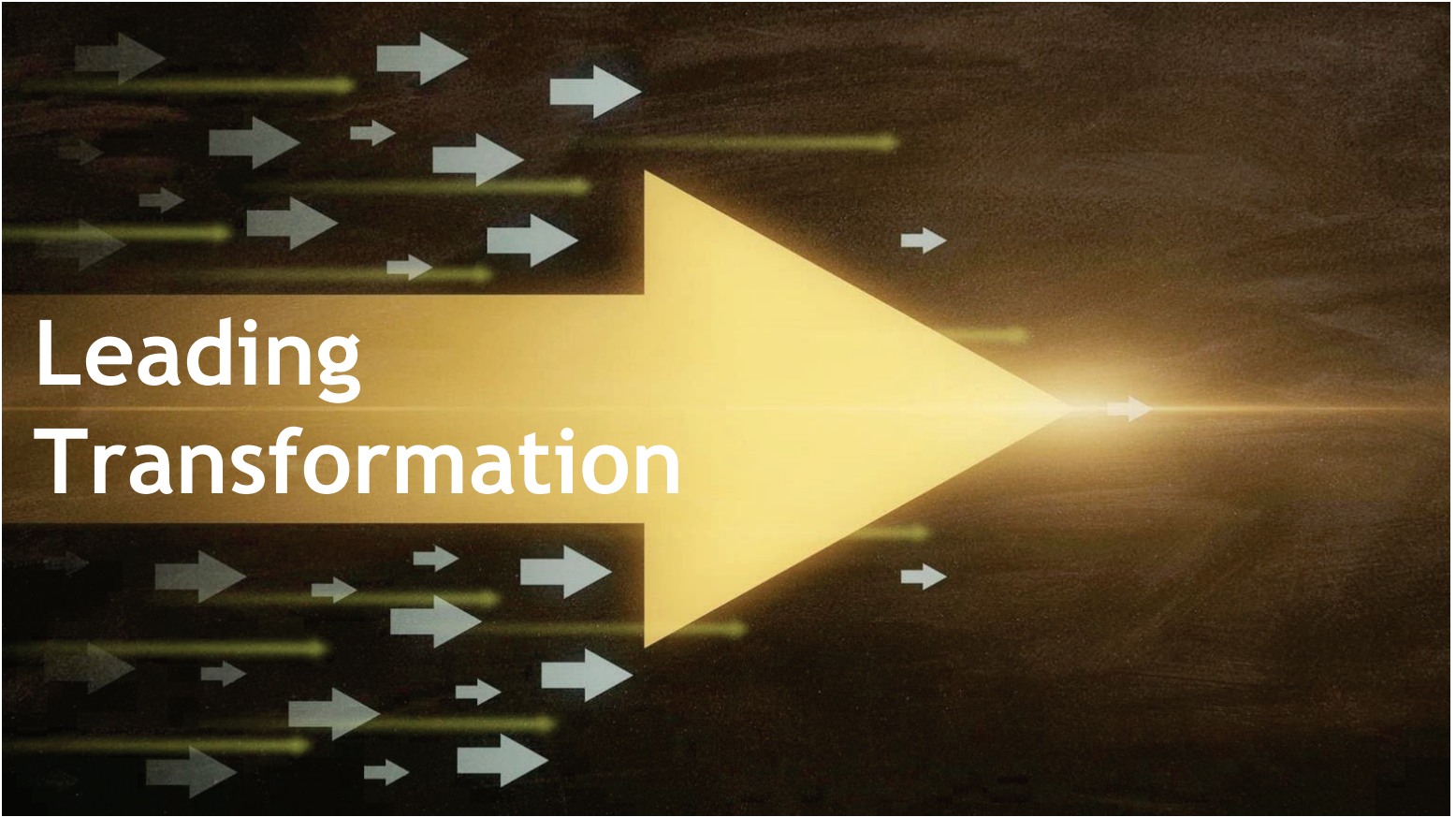
Telemedicine
Practicing Medicine at a Distance

Virtual Care
Connecting with Patients at a Distance

A Telehealth/Virtual Care Taxonomy

A Virtual Care Taxonomy

mHealth

Virtual Care

Ingenium Healthcare Advisors

- **Tele Education**
- **Telemedicine**
- **Patient Portal**

- **Interactive Patient Care**
- **Remote Patient Monitoring**
- **Store and Forward**

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9 Common Virtual Care Modalities

Simple ———————————————————→ **More Complex**

	Synchronous		
	Telephonic Care	Audio/video TeleVisits	Remote audio/video tele exams
	Periodic Remote Physiologic Monitoring (RPM)	Continuous Remote Physiologic Monitoring (RPM)	Patient-generated health data (PGHD)
Asynchronous	Secure Texting	Store & forward photos, audio, video, or data	Digital Therapeutics (DTx)

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Leading Transformation

The Problem

The Problem in Healthcare is not the
Lack of Innovation

The Problem is the
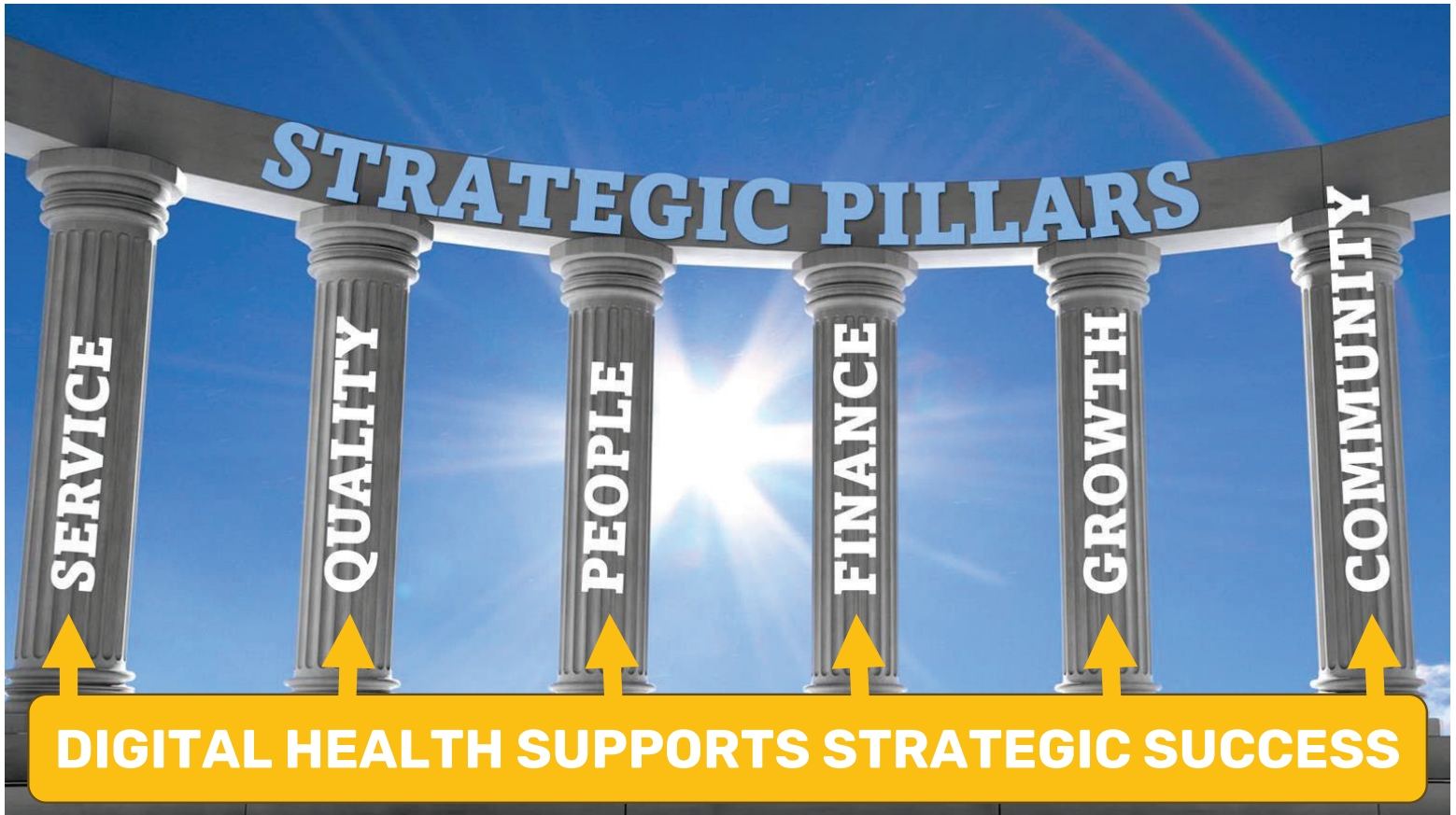**Slow Pace of
Innovation Adoption**

Why So Slow?

❖ **Healthcare is inherently Risk Averse, Conservative**

    ❖ Average adoption of Landmark Clinical Trial Result
        by 50% of physicians: **17 years!!!**

❖ **Quality of Care & Revenue not aligned**

❖ **Very little experience with Critical Leadership Tools:**

strategy execution, fact-based management,
project management, change management,
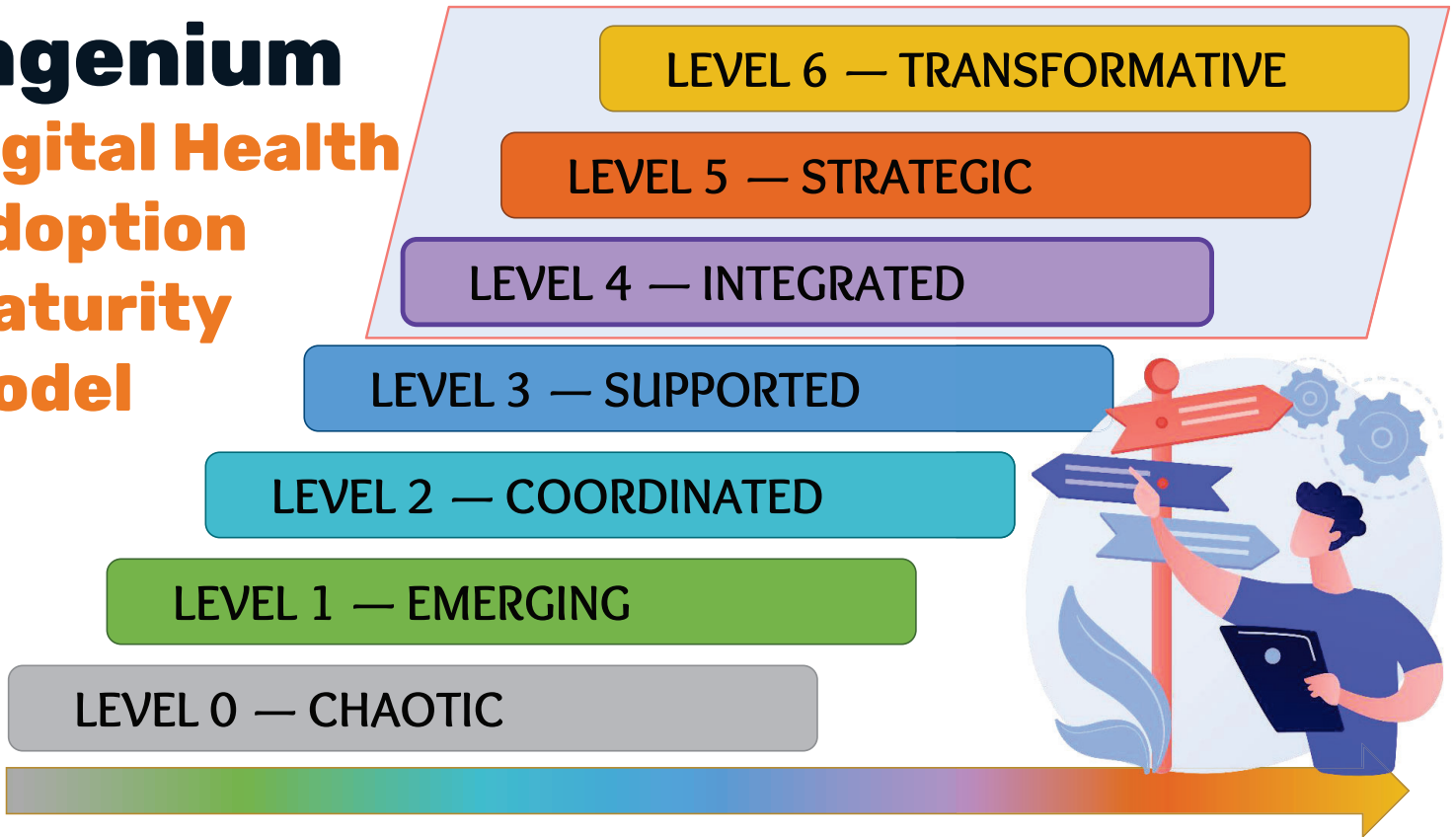*design thinking, workflow design, agile deployment*

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Digital Health is a STRATEGIC TOOL

STRATEGIC PILLARS

SERVICE · QUALITY · PEOPLE · FINANCE · GROWTH · COMMUNITY
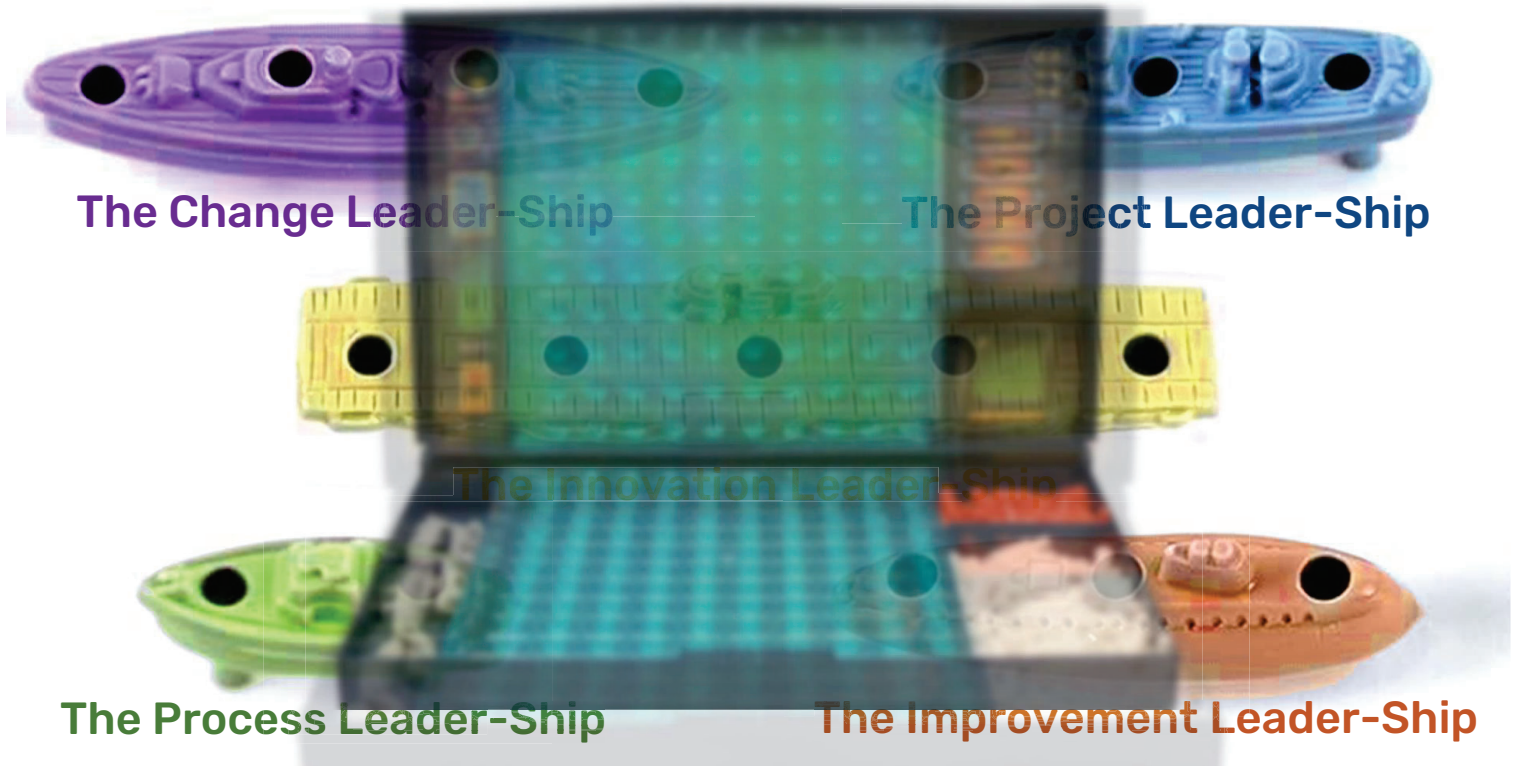
DIGITAL HEALTH SUPPORTS STRATEGIC SUCCESS

Leaders must improve their organization's Digital Health Maturity

Ingenium
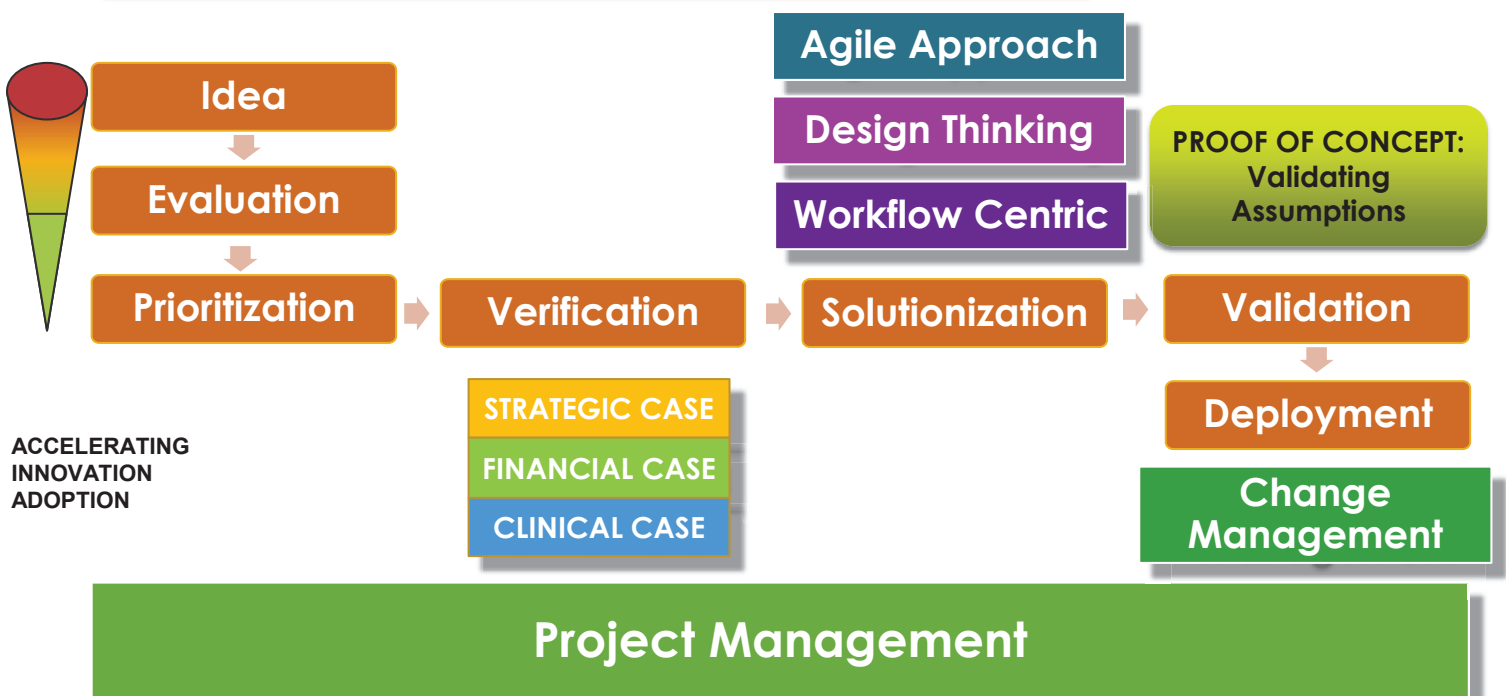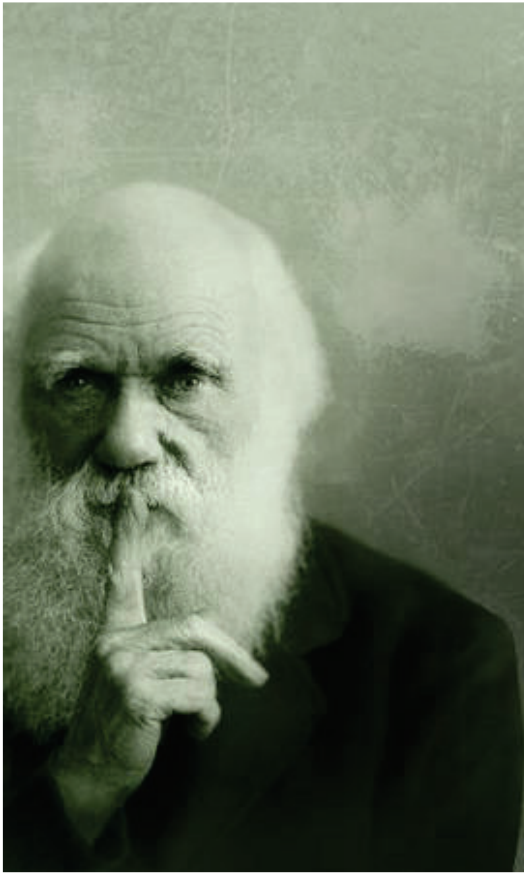## Digital Health Adoption Maturity Model

LEVEL 6 — TRANSFORMATIVE

LEVEL 5 — STRATEGIC

LEVEL 4 — INTEGRATED

LEVEL 3 — SUPPORTED

LEVEL 2 — COORDINATED

LEVEL 1 — EMERGING

LEVEL 0 — CHAOTIC

The 5 LEADER-SHIPS OF TRANSFORMATION

The Change Leader-Ship

The Project Leader-Ship

The Innovation Leader-Ship

The Process Leader-Ship

The Improvement Leader-Ship

Innovation Adoption Idea Funnel

The Innovation Leader-Ship

STRATEGIC PRIORITY
FINANCIAL VALUE
CLINICAL VIABILITY

PRIORITIZATION

idea
critical problem
idea
cool tech
idea
neat solution

idea
idea
idea
idea

concept
concept
concept
concept
concept

project
project
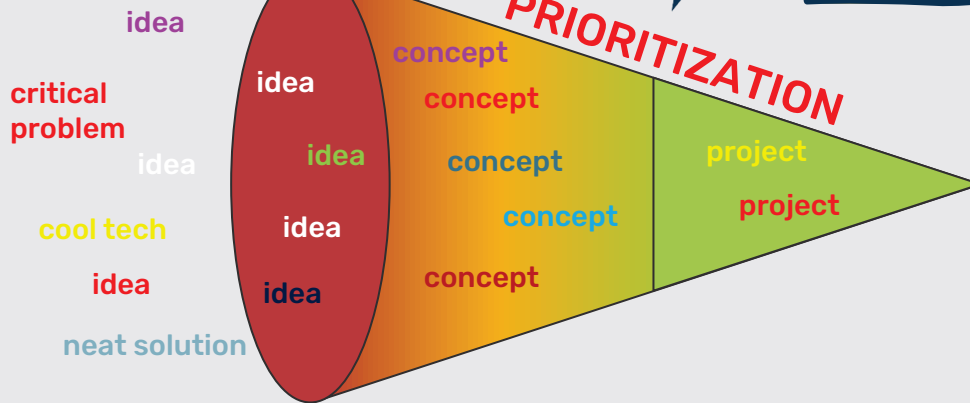
Innovation Adoption Leadership

The Innovation Leader-Ship

Agile Approach
Design Thinking
Workflow Centric

PROOF OF CONCEPT: Validating Assumptions

Idea
↓
Evaluation
↓
Prioritization → Verification → Solutionization → Validation
↓
Deployment

STRATEGIC CASE
FINANCIAL CASE
CLINICAL CASE

Change Management

ACCELERATING INNOVATION ADOPTION

Project Management

**It is not
the strongest of the species
that survives,**

**nor the most intelligent
that survives.**

**It is the one
that is the most
adaptable to change.**

— Charles Darwin

Change Management

The Change Leader-Ship

- Biggest Failure of Innovation Adoption is not managing the Change

- Resistance to Change is part of Human Survival

- Need to appeal to Emotions, to Logic and to Social Acceptance/Herd

ADKAR Framework

The Change Leader-Ship

Raise **AWARENESS**
- Define the Vision, promote the Solution

Create **DESIRE**
- Demonstrate the Benefits

Supply **KNOWLEDGE**
- Use experienced advisors & train adequately

Build **ABILITY**
- Provide opportunities for Learning

Supply **REINFORCEMENT**
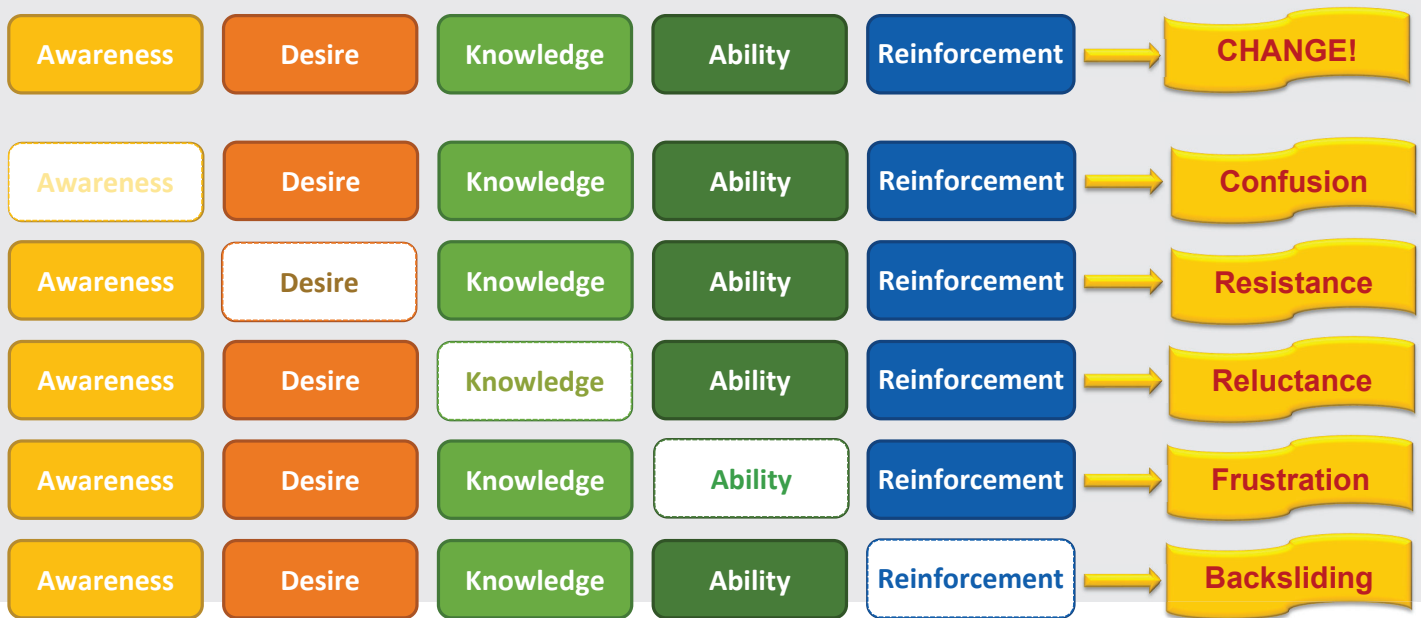- Ensure Accountability, Continuity, Support

Without Change Management...

The Change Leader-Ship

Clinicians
Staff
Patients
Leadership

will become

1) confused
2) embarrassed
3) frustrated
4) reluctant
5) resistant

ADKAR Model for Successful, Sustainable Change

The Change Leader-Ship

Awareness	Desire	Knowledge	Ability	Reinforcement	→	CHANGE!
Awareness	Desire	Knowledge	Ability	Reinforcement	→	Confusion
Awareness	Desire	Knowledge	Ability	Reinforcement	→	Resistance
Awareness	Desire	Knowledge	Ability	Reinforcement	→	Reluctance
Awareness	Desire	Knowledge	Ability	Reinforcement	→	Frustration
Awareness	Desire	Knowledge	Ability	Reinforcement	→	Backsliding

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Project Management

The Project Leader-Ship

- Plans are useless, but Planning is essential
- Certified Project Managers preferred
- Project Management as a Communication and Work Synchronization Tool
- Agile Project Management

PMI PMP Certified

Initiate → Plan → Manage → Control → Close
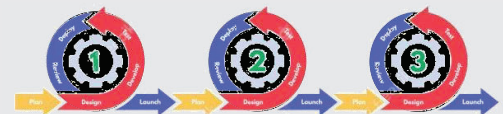
Process Leader-Ship

Digital Health Solutions ALWAYS Change the Process
Define Workflow FIRST
Select Technology SECOND

| UPSTREAM PROCESSES | → | CORE WORKFLOW | → | DOWNSTREAM PROCESSES |

TECHNOLOGY

Telehealth Workflows (Thworfs)

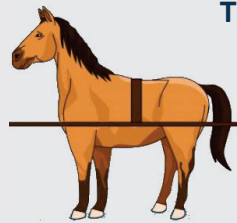| Telehealth Scheduling | Telehealth Onboarding | Telehealth Rooming |

Telehealth Visit

| Telehealth Post Visit | Telehealth Follow Up | Telehealth Billing |

Process must Drive Technology

☑ Don't put the horse behind the cart

TECHNOLOGY

The Process Leader-Ship

Everybody Practices on Top of their License!
"Do only the things that only they can do."

☑ First, design your clinical, operational, and financial workflows, design the UX

☑ Then select the technology that best fits your needs

Leading Improvement

The Improvement Leader-Ship

Dashboards Don't Drive Results!
Data-Driven Decisions Do!
(Fact-Based Management & Improvement)

PLAN 1
DO 2
PDCA CYCLE
4 **ACT**
3 **CHECK**
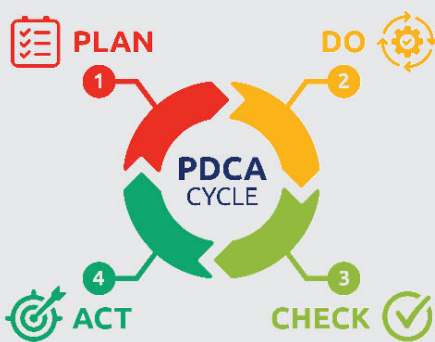
PDCA

Plan — What are we going to do?
Do — Implement Change
Check — Collect & Analyze Facts
Act — Correct Performance

The 5 LEADER-SHIPS OF TRANSFORMATION
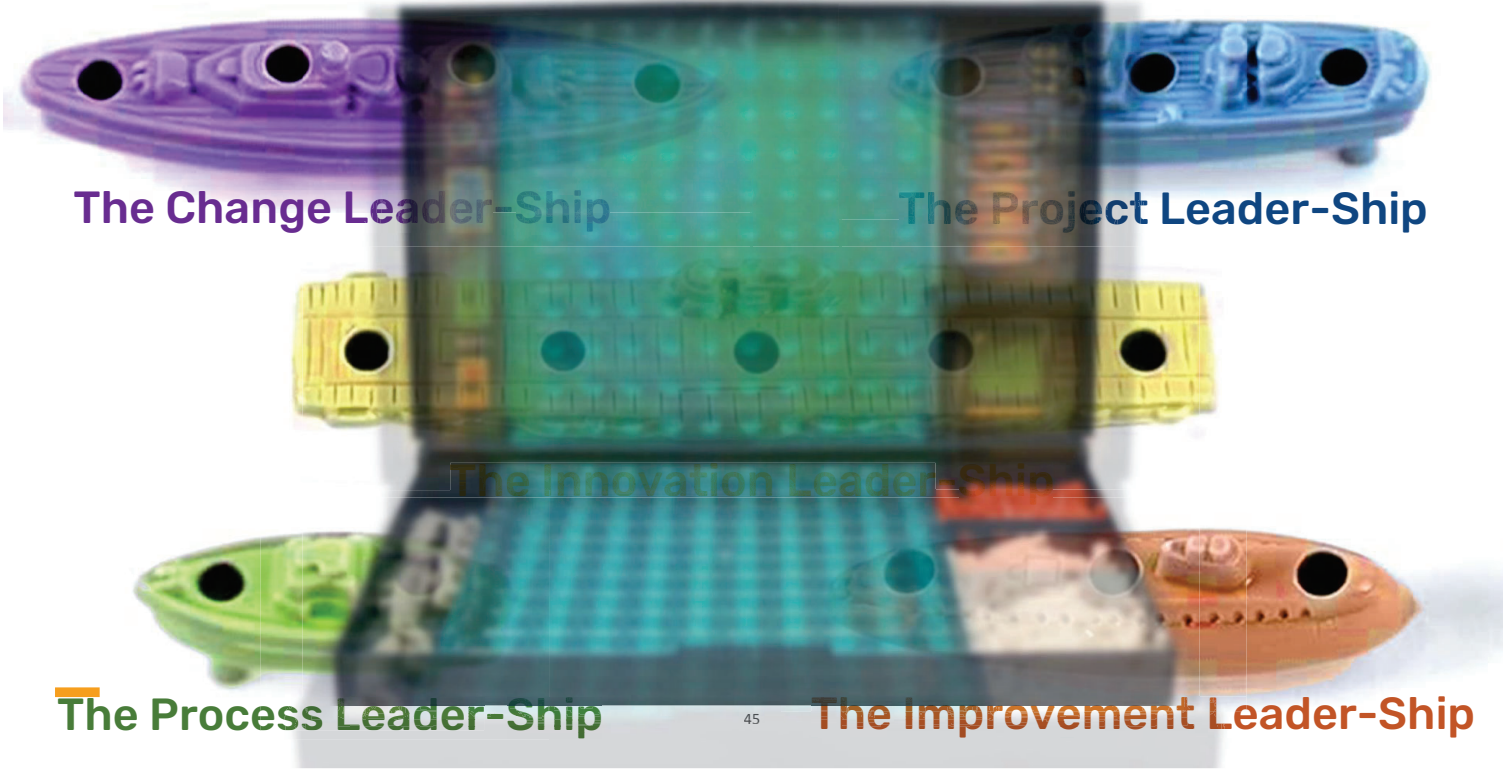
The Change Leader-Ship

The Project Leader-Ship

The Innovation Leader-Ship

The Process Leader-Ship

45

The Improvement Leader-Ship

Ingenium Telehealth Tuesday

Ingenium Digital Health Advisors

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(a weekly column)

After the Q&A:

Health Center of the Future
Education Survey

Q. A.

Community Health Center of the Future

A Framework

IngeniumDigitalHealth.com

THE DESIRED OUTCOME

"A cohesive set of comprehensive insights and pragmatic recommendations

across a wide spectrum of elements

that describe the health center of the future

coalescing the diverse expertise of [a] multidisciplinary team."

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Community Health Centers

Community Health Center of the Future

Offer Community Health Center Leaders
a valuable, pragmatic guide
on how to prepare for and move towards
transforming their organization into a
"Community Health Center of the Future"

Community Health Center of the Future

The Framework

COMMUNITY-FOCUSED CARE MODEL
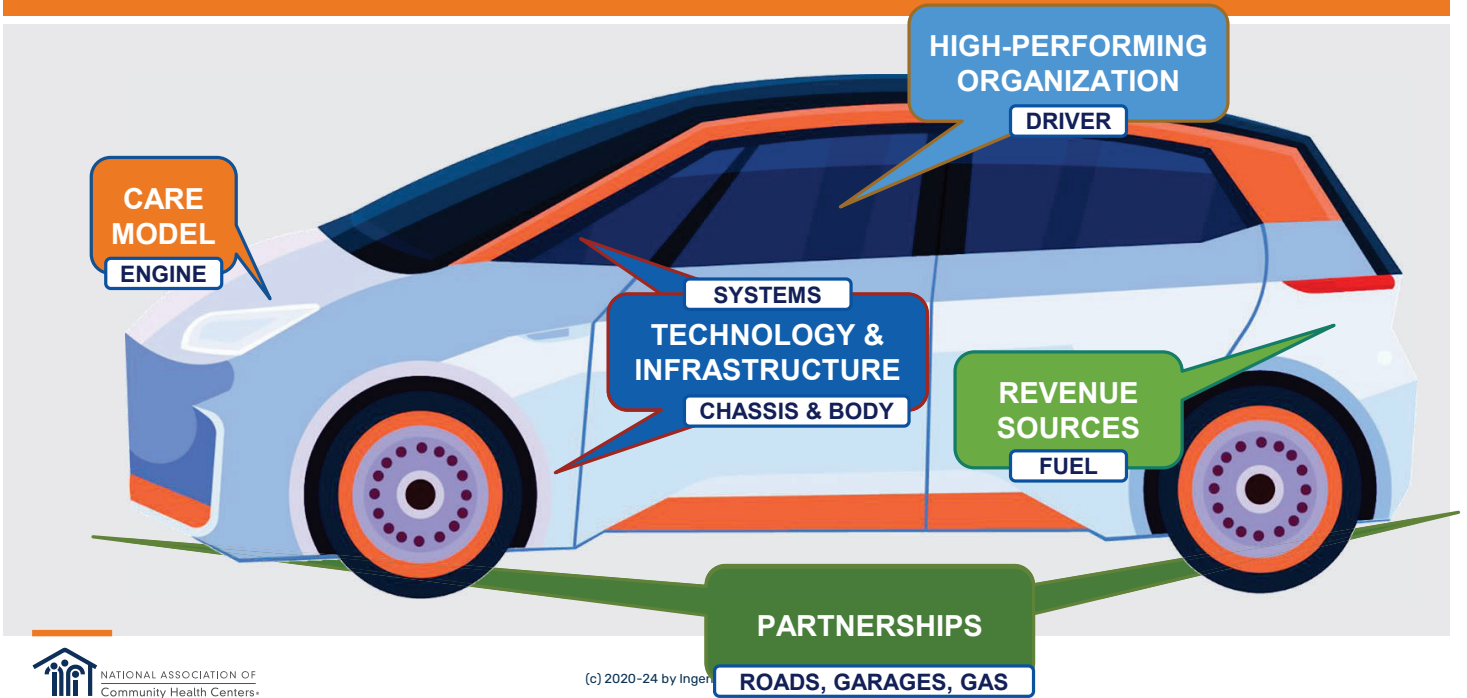
ENHANCED PARTNER- & RELATIONSHIPS

EVOLVING BUSINESS MODELS

ENABLING & SUPPORTIVE TECHNOLOGIES

HIGH-PERFORMANCE CAPABILITIES

HEALTH CENTER OF THE FUTURE

HEALTHCARE CENTER OF THE FUTURE

HIGH-PERFORMING ORGANIZATION
DRIVER

CARE MODEL
ENGINE

SYSTEMS
TECHNOLOGY & INFRASTRUCTURE
CHASSIS & BODY

REVENUE SOURCES
FUEL

PARTNERSHIPS
ROADS, GARAGES, GAS

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Community Health Center of the Future

YOUR INTEREST IN EDUCATIONAL OFFERINGS

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SURVEY INVITATION

YOU'RE INVITED

Which
Skills, Strategies & Tactics
for leveraging
Enabling & Supportive Technologies
would be of most relevance and urgency
to your Health Center?

Survey Link

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Community
Health Center
of the Future

Let's Stay in Touch

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Thank you!

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