

# Smart Medical Devices: Creating value and whole person health

Tuesday 29<sup>th</sup> April, 4.00pm – 5.30pm, Pinnacle Ballroom



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Strategy | Solutions | Platform



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# Agenda



## Smart Medical Devices: Creating value and whole person health

- Setting the Scene
  - Current landscape – where does value reside
  - Promise of Smart Medical Devices: from hospital to home, and achieving whole person health
  - The Challenge of New Care Settings
  - A pathway forward
- Case Studies
  - Vocxi Health
  - Inspire Medical
  - Boston Scientific
- Fireside Chat
- Audience Q&A

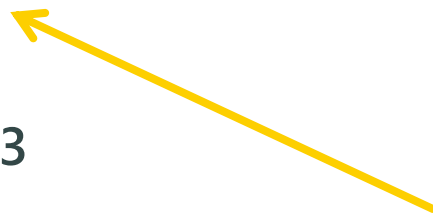
# Medical Devices: Share of National Health Expenditures (NHE)



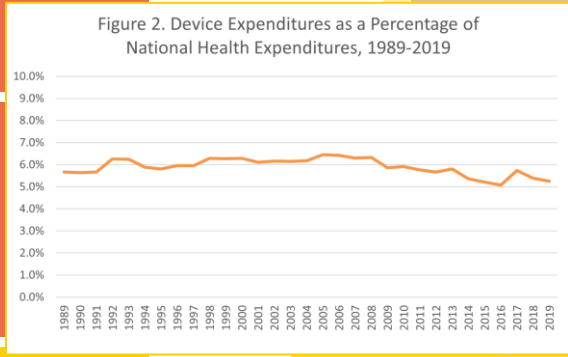
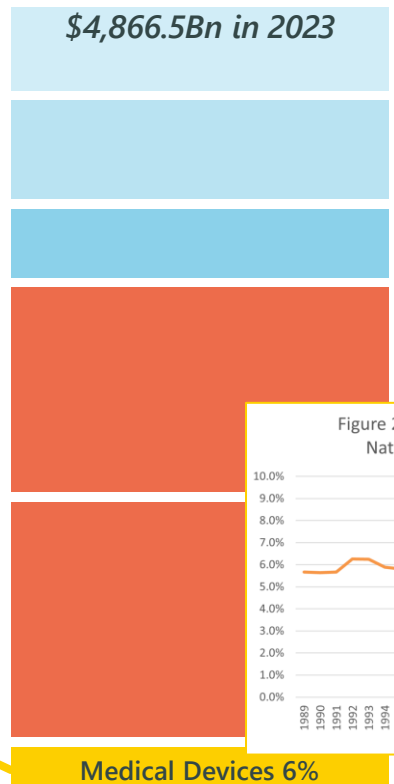
Medical device's share of NHE has remained stable over the past 35 years

~6%

~\$292 Bn in 2023



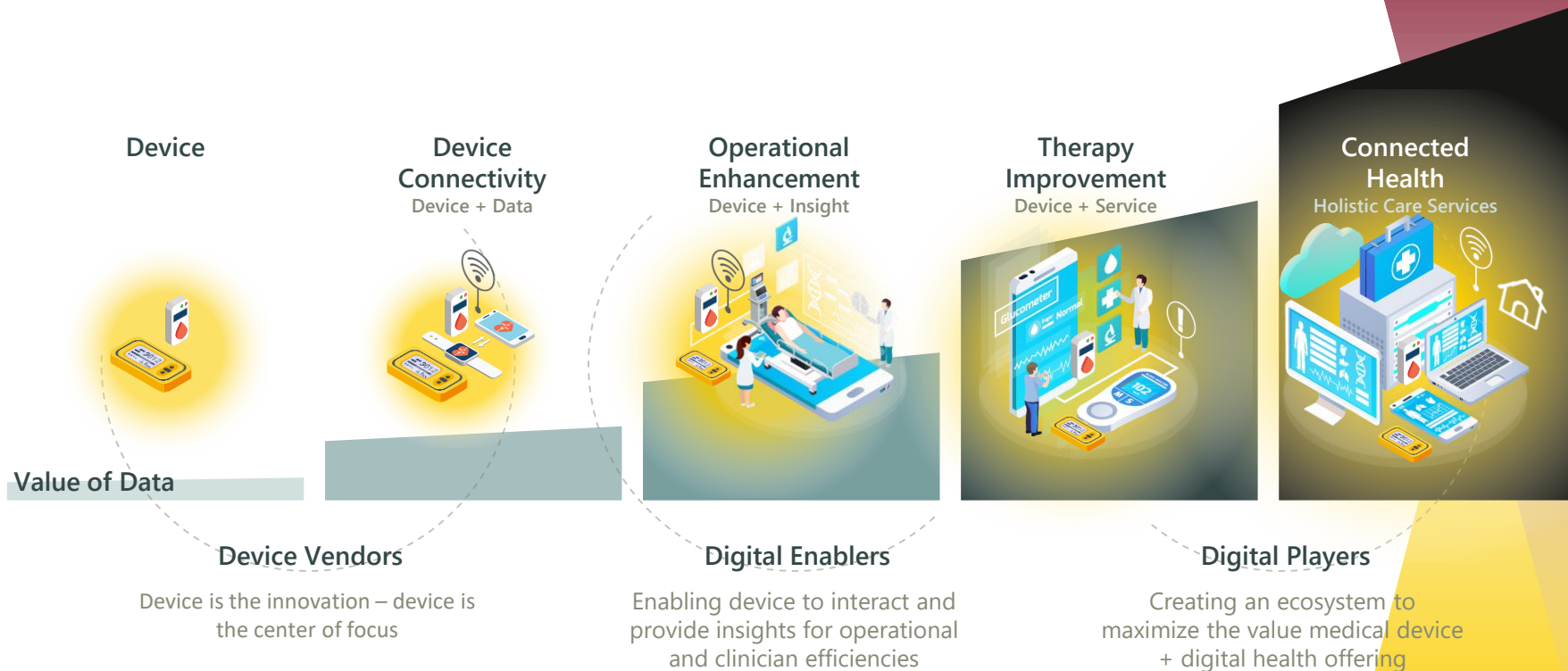
## Breakdown of NHE



Source: AdvaMed, Estimates of Medical Device Spending in the United States, Gerald F Donahoe, 2021

# Promise of Smart Medical Devices

From hospital to home, and achieving whole person health



# New Revenue Streams – Far Greater Opportunity

In segments with a much bigger share of National Health Expenditures



## Breakdown of NHE

\$4,866.5Bn in 2023

New revenue streams of  
~\$45 Bn into larger  
segment of market



Professional Services 27%

Hospital Care 31%

Grow your share of  
existing medical  
devices market by  
~\$25 – 30 Bn of the  
existing ~\$300 Bn  
market



Medical Devices 6%

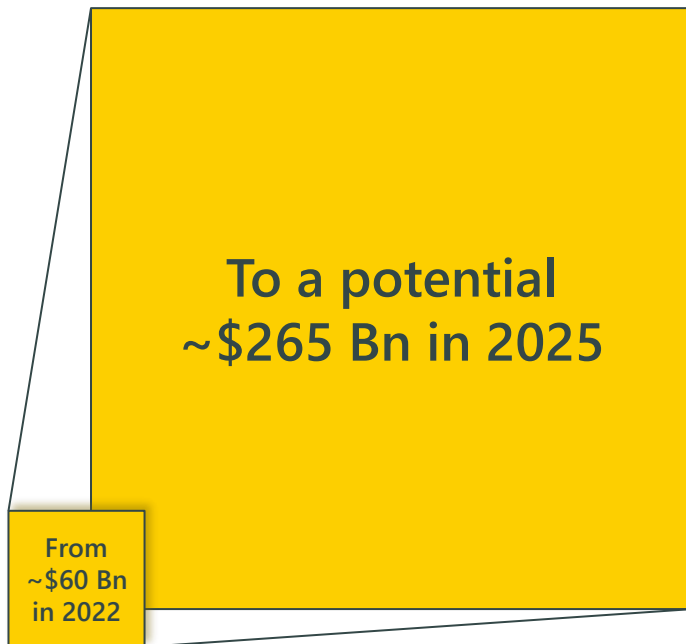
Source Data: National Health Expenditures, 2023; Advanced Estimates of Medical Device Spending in US, 2021; McKinsey, Medtech Pulse, 2023

# Where Does the Future of Care Delivery Reside?

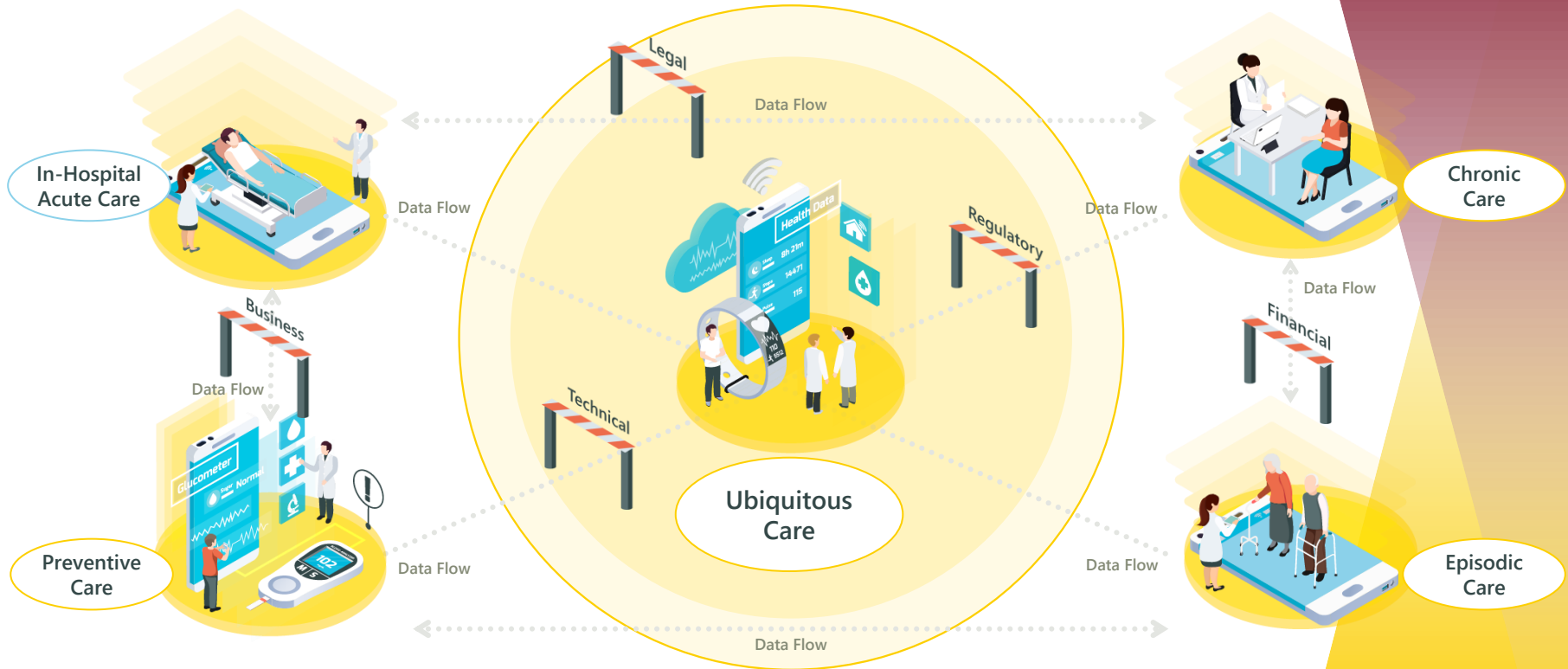


**\$180-265 Bn**

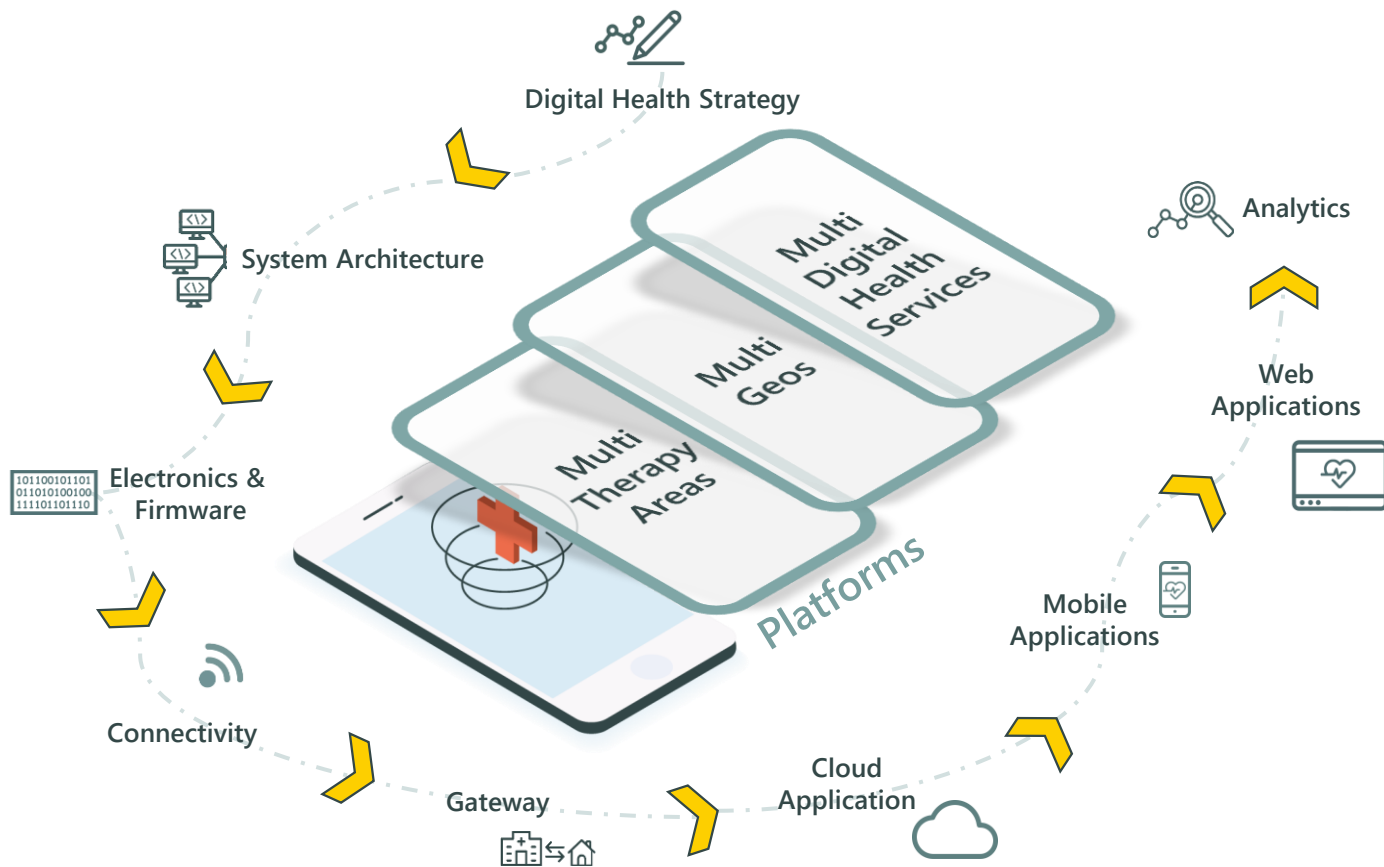
Of care services predicted  
to move to the home  
by this year, 2025



# Challenge of New Care Settings



# Paving the Way Forward



# Case Study



# Vocxi

Human Breath Intelligence



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*Simple Early Detection*

## **DMD Panel 2025: Vocxi Health**

**Smart Medical Devices:  
Creating value and whole person health**

April 29, 2025

Ping Yeh, CEO  
[Ping.Yeh@vocxihealth.com](mailto:Ping.Yeh@vocxihealth.com)

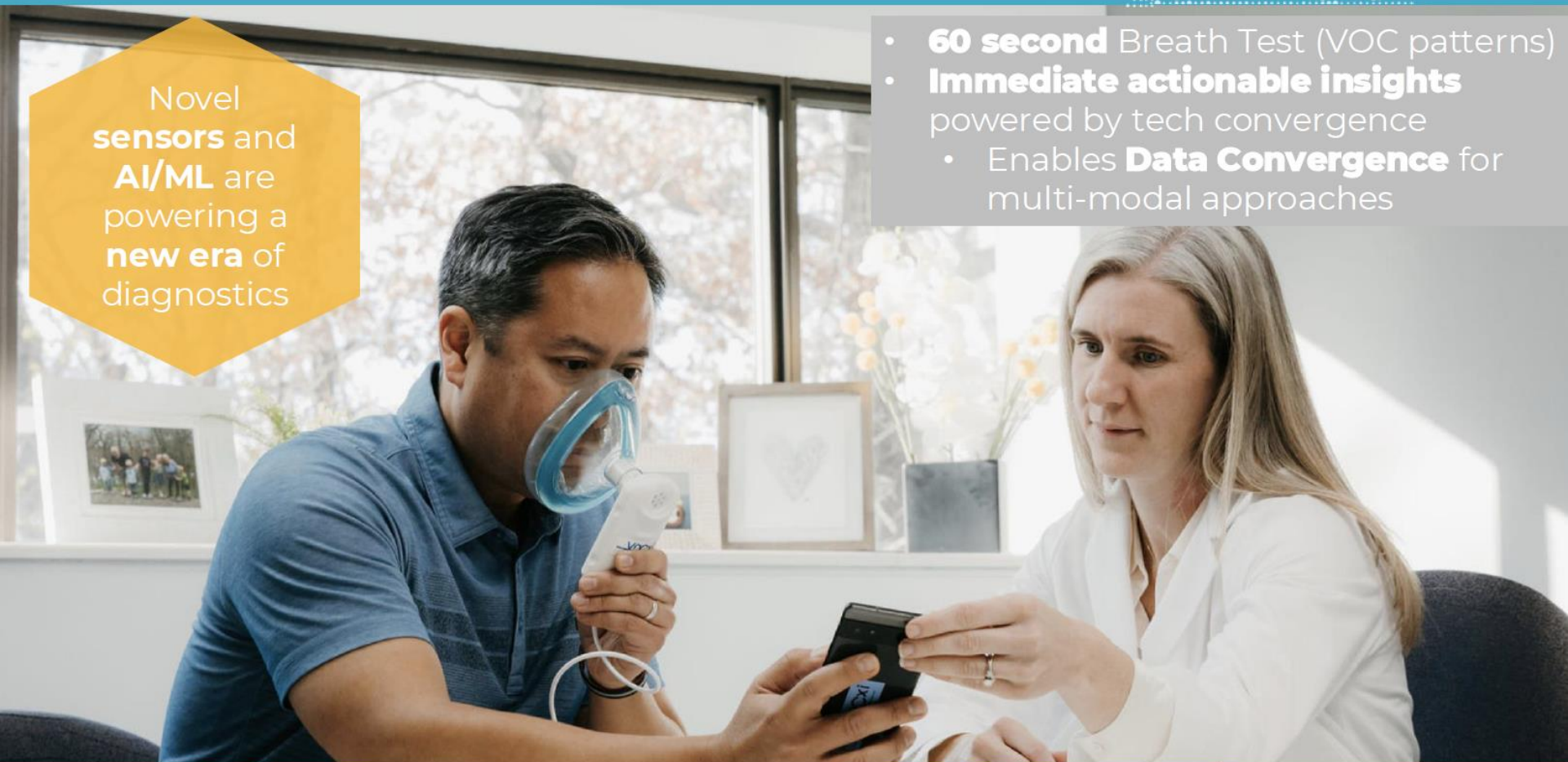




6 months of **delay** nearly cost me my **life.**

Novel **sensors** and **AI/ML** are powering a **new era** of diagnostics

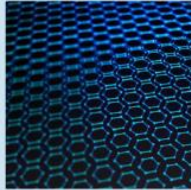
- **60 second** Breath Test (VOC patterns)
- **Immediate actionable insights** powered by tech convergence
  - Enables **Data Convergence** for multi-modal approaches



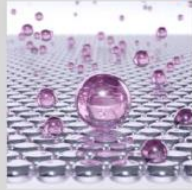


## Cross-Reactive Array Platform

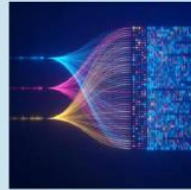
Quantum  
Sensors



Novel  
Chemistry



Machine  
Learning

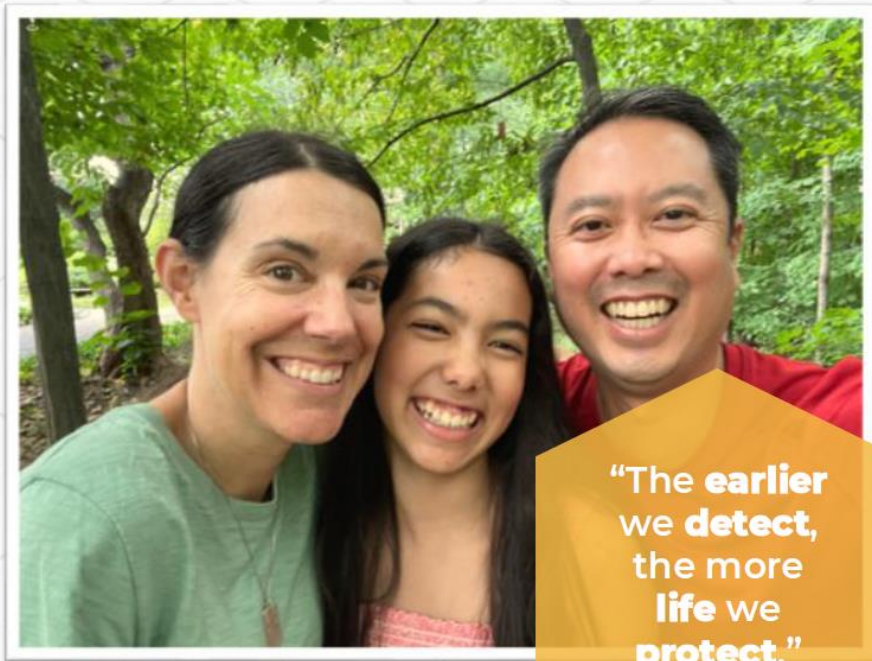


When you  
**remove the  
barriers...**  
you **expand  
the care.**

| Feature        | Traditional Diagnostics             | Breath-Based Approach    |
|----------------|-------------------------------------|--------------------------|
| Infrastructure | Yes (CT/MRI, labs, staffing)        | Free from infrastructure |
| Invasiveness   | Often invasive (radiation, painful) | Noninvasive              |
| Time to Result | Hours to Weeks                      | ~1 minute                |
| Cost of Access | High                                | Designed for Scalability |
| Repeatability  | Infrequent                          | Frequent / longitudinal  |



One test  
delivers  
value across  
patients,  
providers, &  
populations



“The **earlier**  
we **detect**,  
the more  
**life** we  
**protect.**”



*Simple Early Detection*

*Let's shift from  
treating disease to  
anticipating it —  
together.*

Ping Yeh, CEO  
[Ping.Yeh@vocxihealth.com](mailto:Ping.Yeh@vocxihealth.com)



## Case Study



# Inspire



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# Placeholder



Case Study



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# Boston Scientific



# The Big Picture - Healthcare Economics & Technology

## Lessons from 15 Years in Remote Monitoring



Originally implanted cardiac devices (pacemakers and defibrillators) were monitored periodically – during follow-ups in clinic.

Remote monitoring emerged in the mid-2000s:

- All custom solutions
- Communicated with POTS, migrated to cellular
- Generated alerts for clinicians
- Generally billable



Features have been added:

OptiVol 2.0™, HeartLogic™, CardioMems™

# Adoption Patterns & Healthcare Integration Realities

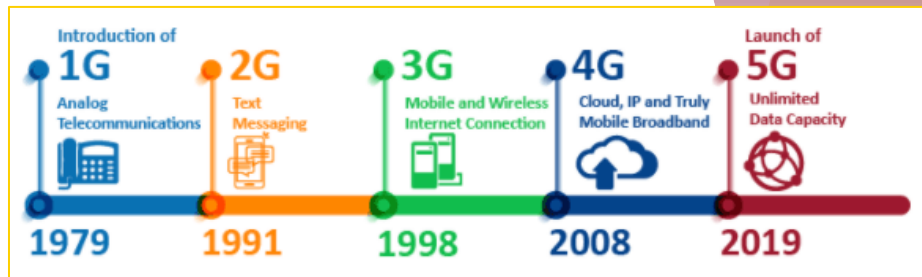


Ongoing costs of monitoring: cellular data, back-end development

Integrating with consumer technology roadmaps difficult

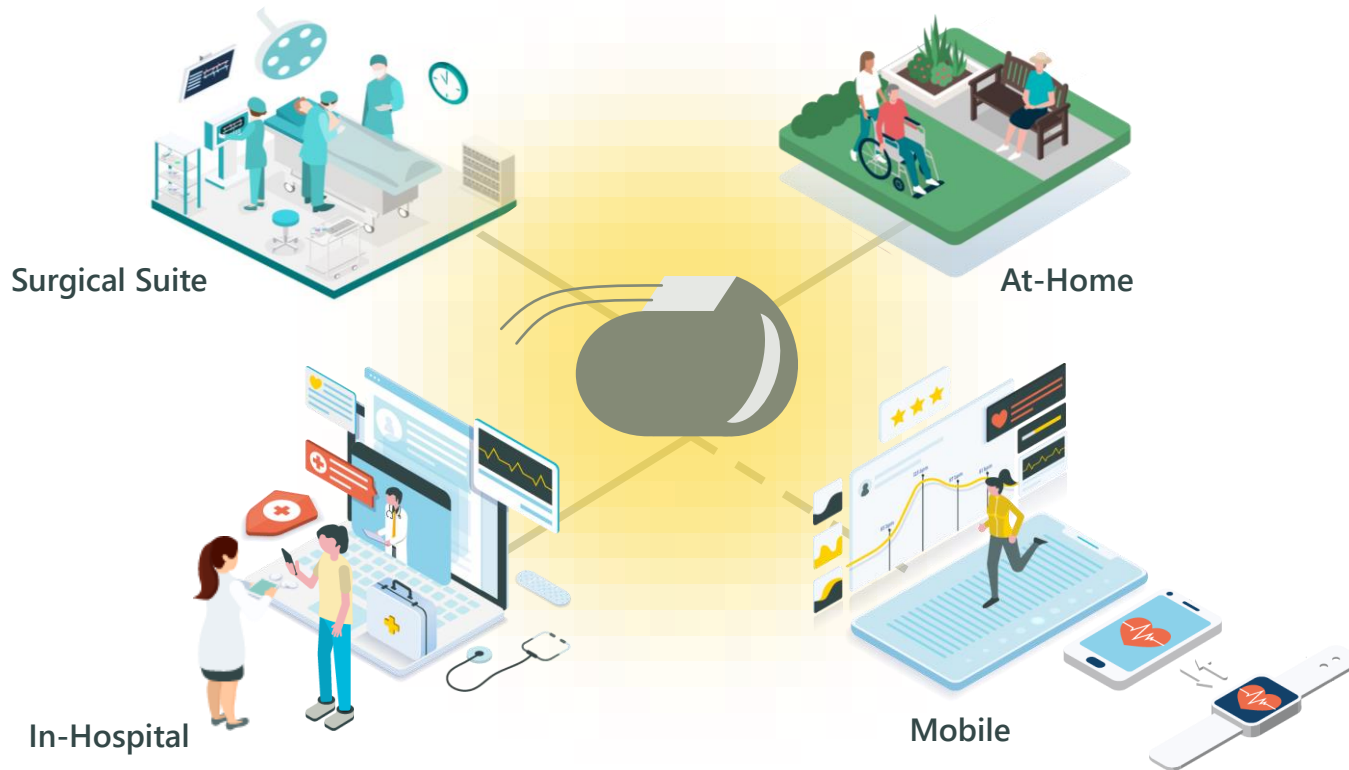
Integration with EMRs exists, but can be improved

Clinic integration and workflows are not consistent



Remote cardiac monitoring solutions have historically focused on clinical workflows and device alerts. As the field evolves, there's a growing opportunity to elevate the role of the patient—not just as a data source, but as an informed participant in their own care

# Evolution of Medical IoT in the CRM Space



# Smart Medical Devices:

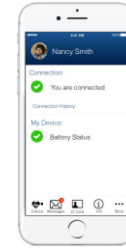
## Enabling Whole-Person, Data-Driven Care



Real-time data from smart devices—including wearables and implantables — is integrated into care algorithms, enabling personalization based on biology, behavior, and environment.

Remote patient monitoring and alert systems detect early warning signs to prevent escalation - reduces hospitalizations, improves chronic care, and enables real-time response to patient changes.

Smart devices democratize access to health data, enabling self-management and shared decision-making. Fosters autonomy, improves health literacy, and strengthens the connection between patients and their care.



# Fireside Chat / Audience Q&A

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