ASHB
Association for Smarter Homes & Buildings

# Smart Home Council (SHC) Webinar

# Meeting will commence 12:05pm ET

Wednesday, November 5, 2025 | 12 PM – 1:30 PM (ET)

SHC Chair: Ken Wacks (Ken Wacks Associates)

Vice-Chair: Joshua Gerena (2N/Axis Communications)

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# Agenda
## Marta Klopotowska (ASHB)

1. Call to Order, Welcome, Introductions, About the SHC
2. Administrative
3. Research Update
4. Keynote: Connected Home, Connected Care: Smart Technologies for Aging in Place – Alan R. Bugos (LifePod Solutions)
5. ASHB Podcast
6. ASHB Whitepapers
7. ASHB Journal
8. New Business
9. Announcements
10. Adjournment

# 1. Call to Order, Welcome, Intro, About the SHC
## Ken Wacks (Ken Wacks Associates)

**SHC Chair**
**Dr. Kenneth Wacks**
Management & Engineering Consultant

KENNETH WACKS, Ph.D.
*Management & Engineering Consultant*

**SHC Vice-Chair**
**Joshua Gerena**
Segment Development Manager - CRE

2N AXIS COMMUNICATIONS

## About the SHC

Established in 2004, the ASHB Smart Home Council initiates and reviews projects that relate to smart home and multiple dwelling unit technologies and applications. The Council also examines industry opportunities that can accelerate the adoption of new technologies, consumer electronics and broadband services within the burgeoning smart home market. www.ashb.com/shc

# 2. Administrative
Ken Wacks (Ken Wacks Associates)

## Approval of SHC Minutes

August 14, 2025

www.ashb.com/shc


## Open Call for SHC Vice Chairs

The Smart Home Council (SHC) is seeking Vice-Chairs to help guide its quarterly meetings. Contact admin@ashb.com to learn more and find out how you can be part of this council.

# 3. Research Update
## Greg Walker (ASHB)


## 2025 SHC Landmark Research
## Smart Home Trends & Technology Adoption

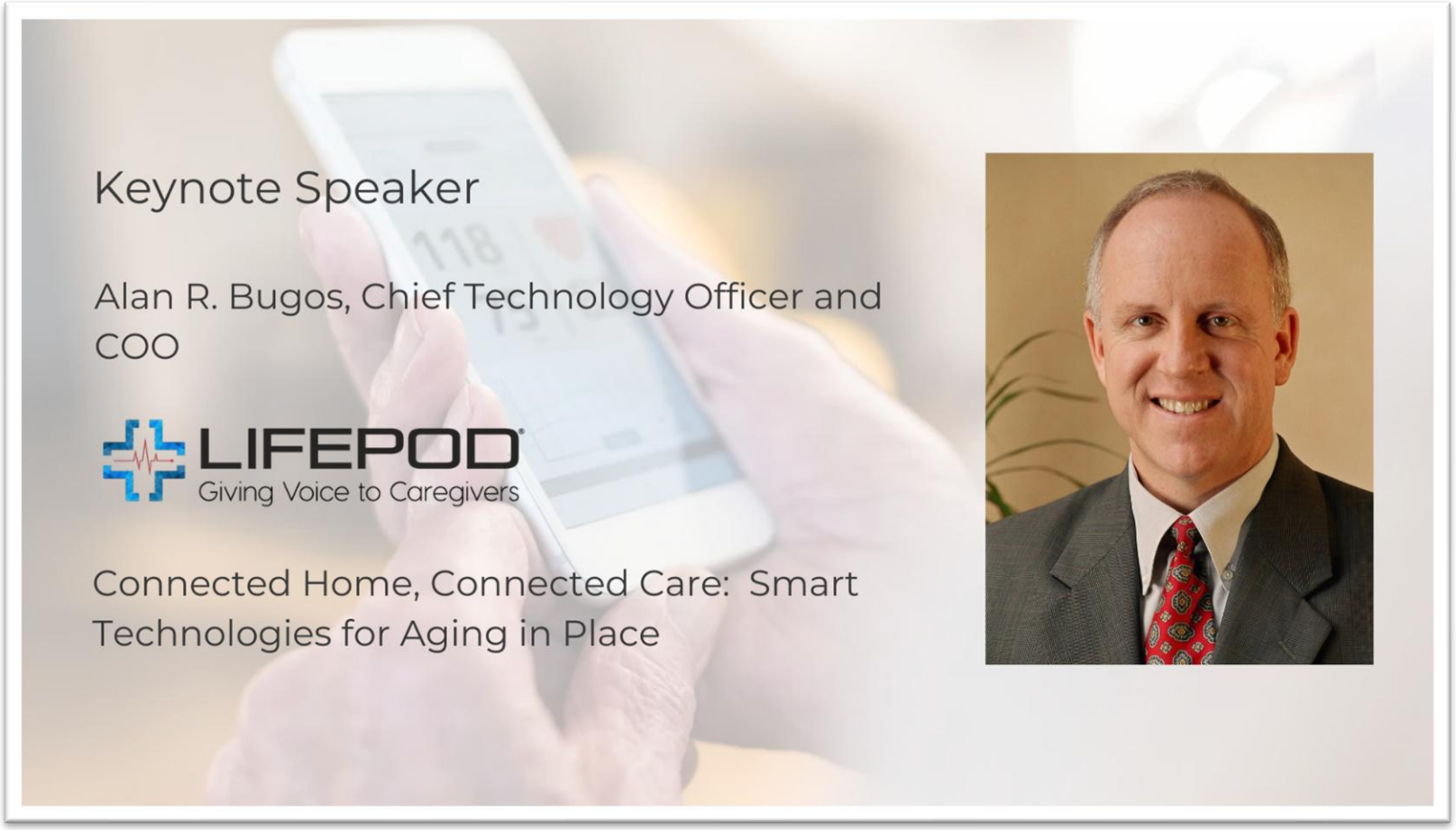
**Funders**

DAIKIN LUTRON

National Research Council Canada
Conseil national de recherches Canada
resideo
TRANE

Contact admin@ashb.com to obtain research findings and to join as a funder.

# 4. Keynote
## Joshua Gerena (2N/Axis Communications)



LIFEPOD

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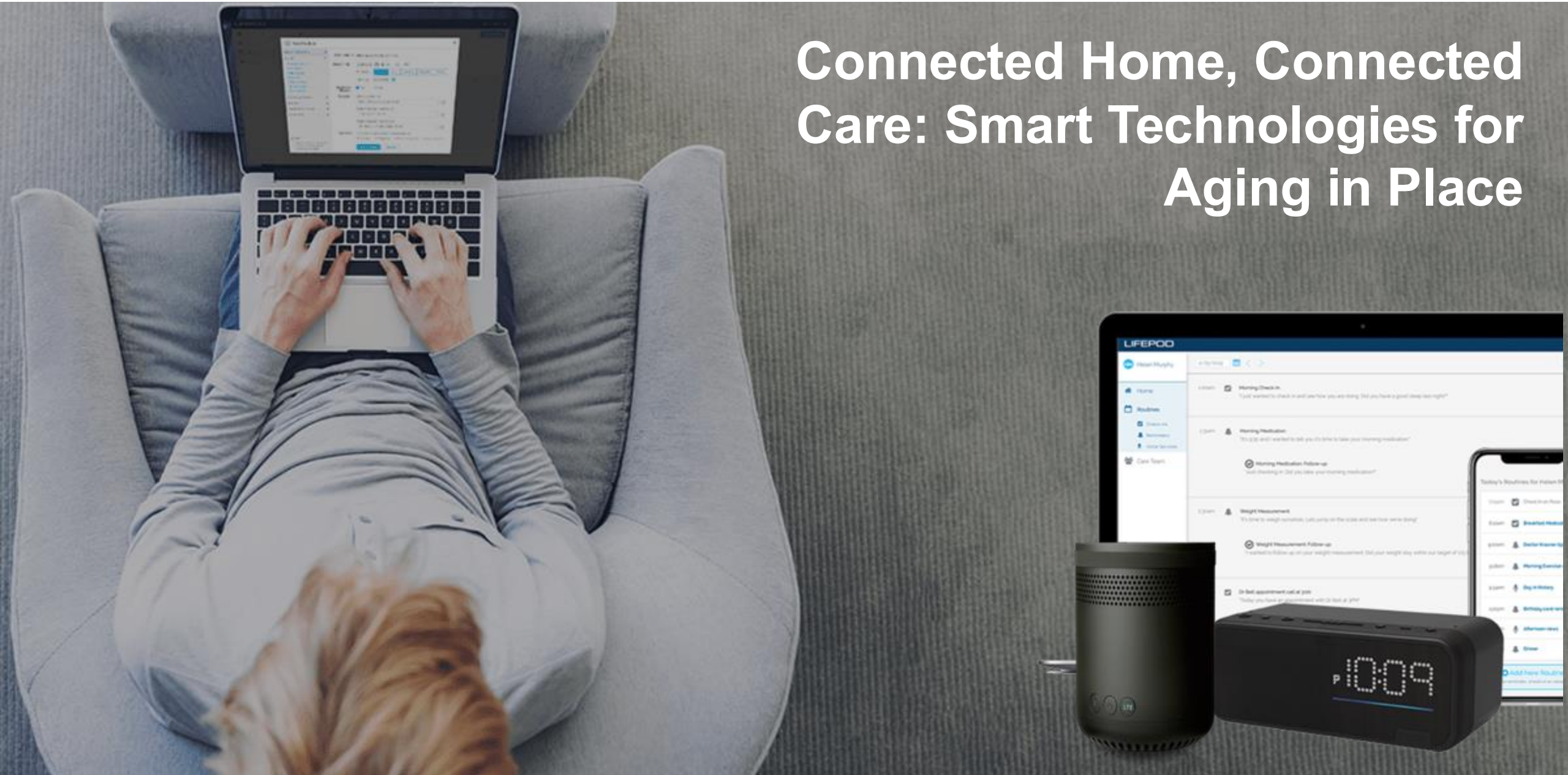
# Connected Home, Connected Care: Smart Technologies for Aging in Place



# Connected Home, Connected Care: Smart Technologies for Aging in Place

As more seniors and patients choose to age in place, connected homes are becoming central to health and wellness. This presentation explores how broadband, IoT, and smart home technologies are enabling “connected care” solutions that extend beyond clinical settings and into everyday life.

Smart devices, wearables, and health-tech innovations are bridging the gap between time spent in a provider’s office and life at home or on the go. From remote patient monitoring and emergency services to combating social isolation and improving safety, these technologies are reshaping healthcare delivery and driving better outcomes for both recipients and caregivers.

Alan Bugos will highlight the current landscape and the innovations on the horizon, including wearable health devices, next-generation connectivity (BTLE, WiFi, wireless, and mobile), and advanced health data analytics. Attendees will gain insights into how these solutions are creating a shift from reactive to proactive healthcare, lowering costs, and laying the foundation for a new paradigm where smart homes and IoT play a vital role in long-term wellness.

# Questions and Topics

- As the U.S. population ages, how do you see the role of the connected home and health tech evolving in supporting aging-in-place?
- How do health technologies deployed in smart homes, such as remote monitoring and AI-driven insights help caregivers and healthcare providers manage chronic conditions and improve care coordination?
- How can these new technologies help improve patient adherence to their care plans?
- What are the next big frontier in connected health tech that could revolutionize care for aging populations, senior safety and chronic disease management?

# Agenda

- Drivers in Healthcare Transformation
- Embracing IoT – The Internet of Things
- The Connected Home for Connected Care – what might it look like?
- Connected Care Health Technologies (HealthTech) on the rise
- Some interesting Use Cases leveraging Connected Care in a Connect Home
- Summary and Q&A

# Healthcare: an industry in transformation

| Population Health Management | Consumerization | New business models | Networked care | Industry consolidation | New clinical technology | Digitization |
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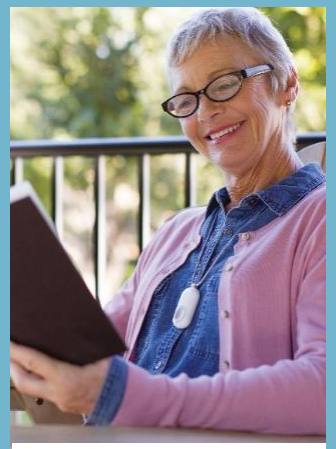
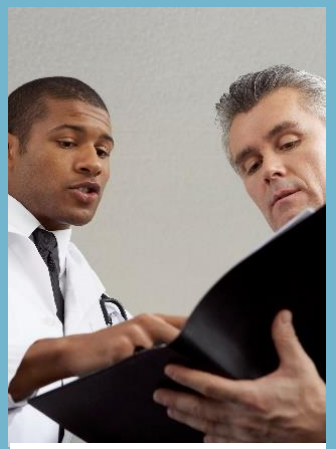
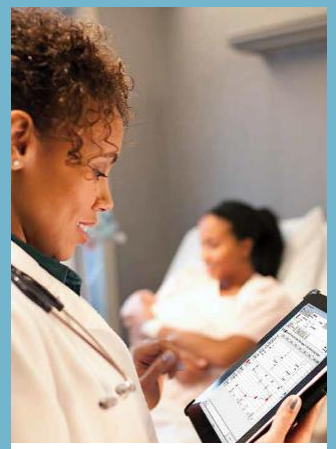
|  |  |  |  |  |  |  |
| **Population growth, aging, rise in chronic diseases** | **Consumers increasingly engaged in their health** | **Transition to value-based healthcare** | **Care shifting to lower-cost settings** | **Provider and payer landscape consolidating** | **Precision diagnostics & personalized therapies** | **Integrated technology; Data-driven care** |

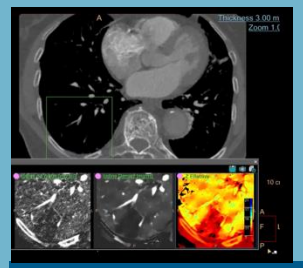
From sick care to value-based care and population health

# Enabling integrated, continuous healthcare via IoT and AoT drives value in solutions

**Cloud - Sensors - Devices - Machine Learning - Artificial Intelligence - Analytics**

Data sources and Stores, data models, Micro-services  Cyber security  Privacy  HIPAA

**Continuous health tracking**



**Advanced visualization**


**Context-aware patient monitoring**

**Home RPM monitoring**

**Image-guided therapy**

**Computational pathology**

**Quantification**

**Genomics**

**Adaptive interfaces**

# The global healthcare challenge

**1 out of 3 people**

will be diagnosed with cancer in their lifetime

**500+ million people**

suffer from respiratory diseases

**400M people**

worldwide have diabetes

An estimated

**1B adults**

have hypertension


AARP and National Alliance for Caregiving, Caregivers of Older Adults: A focused look at those caring for someone age 50+

# Proactive approach to “connected” health

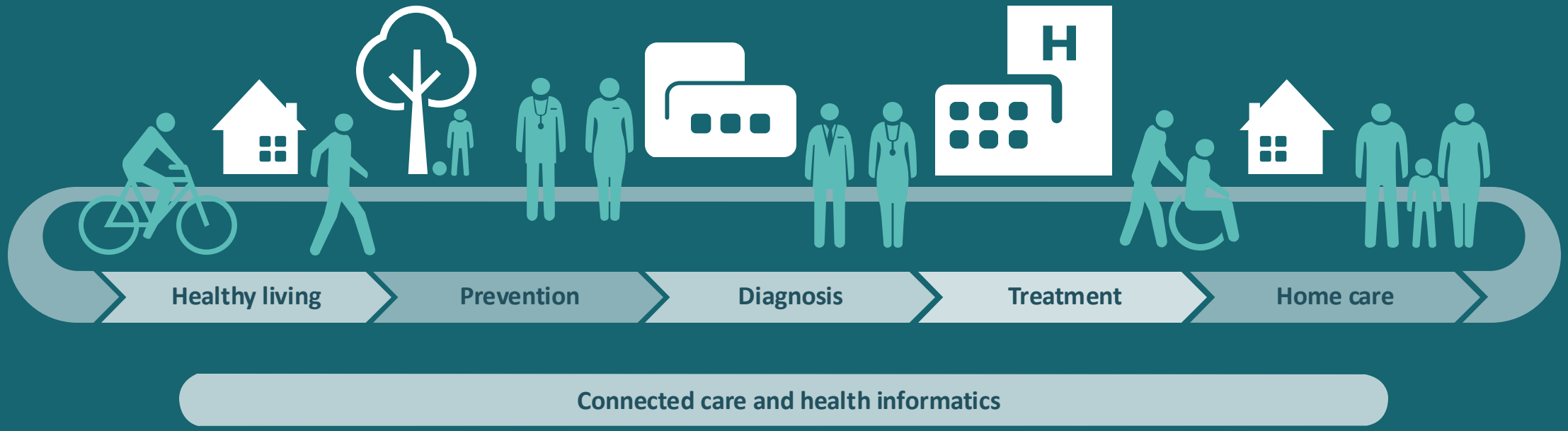
**73%** of healthcare professionals said connected tech is important to improving the prevention of medical issues

**47%** of healthcare professionals claim to be knowledgeable about connected tech

**63%** of the general public think connected care is important for improving healthy living

future health index

# Shifting to a holistic approach



# Healthcare on demand?

# Banking - Easy Access

# Why is our healthcare not *always on*?

# Connected Care – Connected Home Transformation

## Transforming the aging experience for seniors, patients, their caregivers and healthcare providers

### Health & Wellness

**Enable living well and staying healthy despite advancing in age**

### Safety

**Staying safe in and out of the home. Predicting deterioration for early intervention.**

### Connectedness

**Supporting care coordination and communication, enabling meaningful relationships**

# COVID emphasized the needs of the Aging and their Caregivers in 2020

**How to reduce Social Isolation?**

**How to help create stronger connections to family, friends and community?**

**How to gather insights through health outcomes**

**How to deliver better health outcomes with payor models**

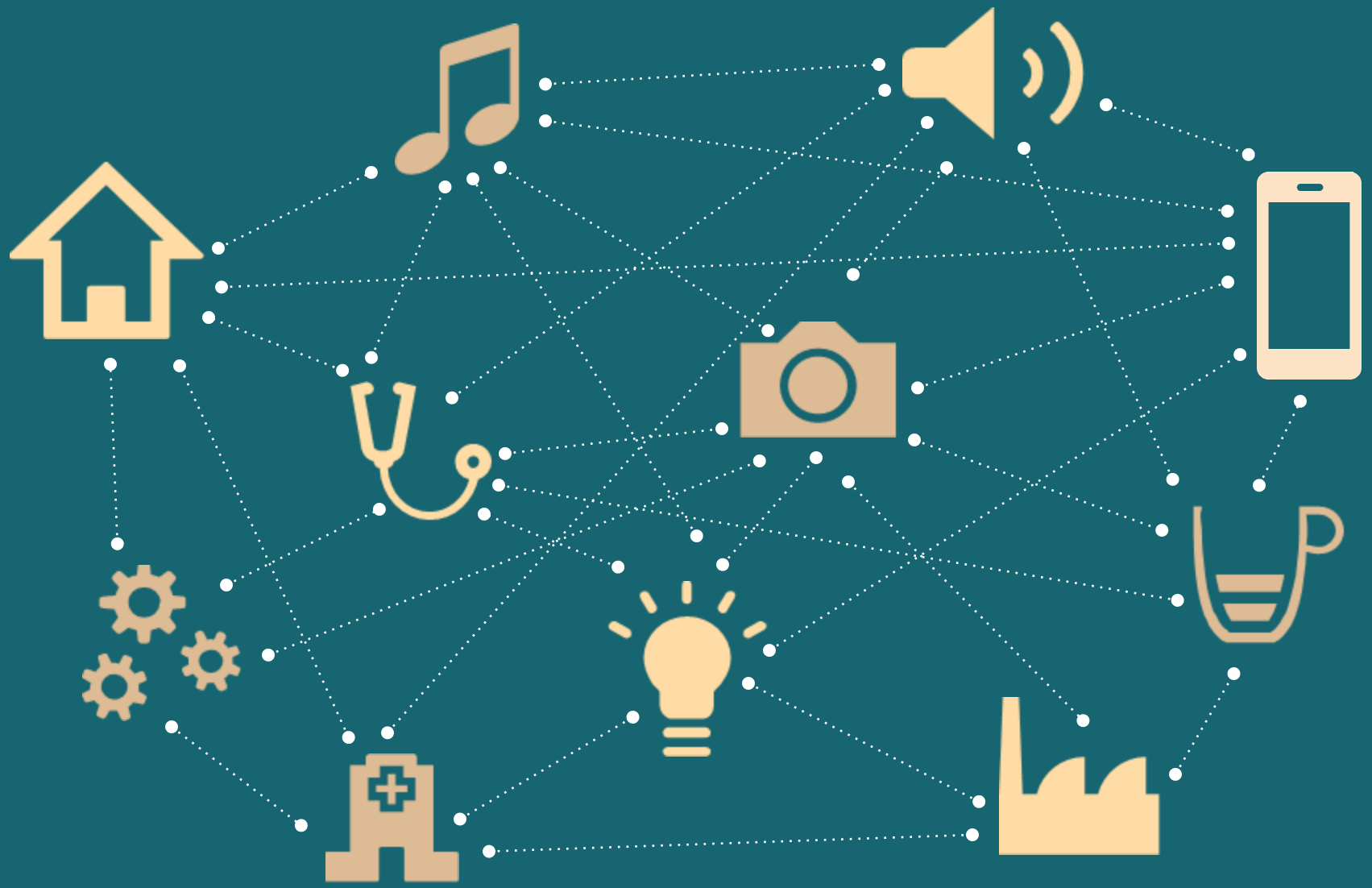
**How to provide assistance with actionable health and daily routines**

# Managing Patients at Home via Digital Connected Virtual Continuums

## The bulk of care in the future will be tied less to locations and more to versatility of services.

- Health systems and community providers that can continue to evolve beyond their real estate will be best positioned in the digital healthcare future.
  - ✓ Connected Home and Community-based Services vs. bricks and mortar
  - ✓ Urgent care and virtual clinics vs. traditional medical offices & clinic settings
- Accountable Care Organizations (ACOs), community continuums and HCOs will emphasize **home and community-based services** to keep people healthy and independent at home – at lower cost.

# Connecting the dots

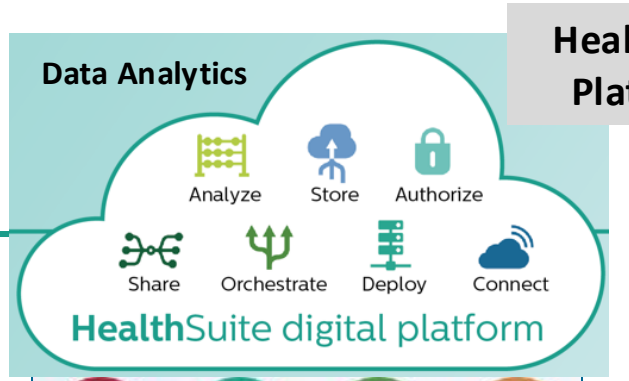


# Devices are a small part of the comprehensive solution and service

*Devices or "things" are a means to the end (idiom) and their true value is in the data they can generate and extract to leverage the service value that IoT can offer to users of end-to-end digital solutions, applications and platforms. This value can be driven by analytics of things.*

# The Connected Home for Connected Care

In Healthcare, "**Things**" require "**Analytics**" to drive insights, decisions, interventions and outcomes. A significant portion of IoT data is not visible or seen in traditional computing systems. Analytics & AI assists in providing insights, what is relevant and actionable.

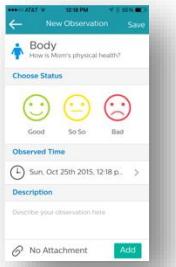

**Data Stores**
**Orchestration**
**Analysis,**
**Insights, AI**

Patient

Caregiver & Family

Clinician & HCO

**Decisions**
**Stakeholders**



CareGiver Mobile App

Care Management & Response Center

**Notification**
**Visualization**
**Actions**

# Technology/Innovation Trends in Healthcare and Connected Care @ Home

Wireless
WiFI, BTLE, NFC,
RFID, LoRa

Voice - Speech
Recognition
Voice User Interface

Wireless Ambient
Sensing

Continuous
Monitoring

Robotic
Home
Assistants

5G Mobile
Cellular

Telemedicine
TeleVisits

Smart
Home
Devices

Platforms - Integrations
(PaaS & DaaS)
via Cloud

Mobile
Apps

Big Data & Actionable Insights
Predictive Analytics


AI & Machine
Learning

Predictive and
Generative AI

Software as
a Medical
Device

**Technology Trends are Driving Digital Transformation, Digital Health, Insights, Clinical Decisioning and Healthy Outcomes**

# Some Technical Challenges to Address

- Connected care connectivity gateways and hubs (wireless and mobile)
- Interworking and Interoperability
- Enhancing security and privacy
- Increased caregiver and patient/subscriber engagements
- Enhancing the Voice User Interface
- Use of Wireless Ambient Sensing
- Leveraging and reducing smart homes and overall connected care solution costs

# Some interesting Use Cases leveraging Connected Care

- Telehealth and Remote Patient Monitoring
- Smart Medication and other MedTech, HealthTech Connected Devices
- Smart Lighting, Cameras and Sensors for Senior Safety
- The Voice User Interface (VUI) – Alexa and LifePod
- Wireless (WiFi) Ambient Sensing
- Wearables

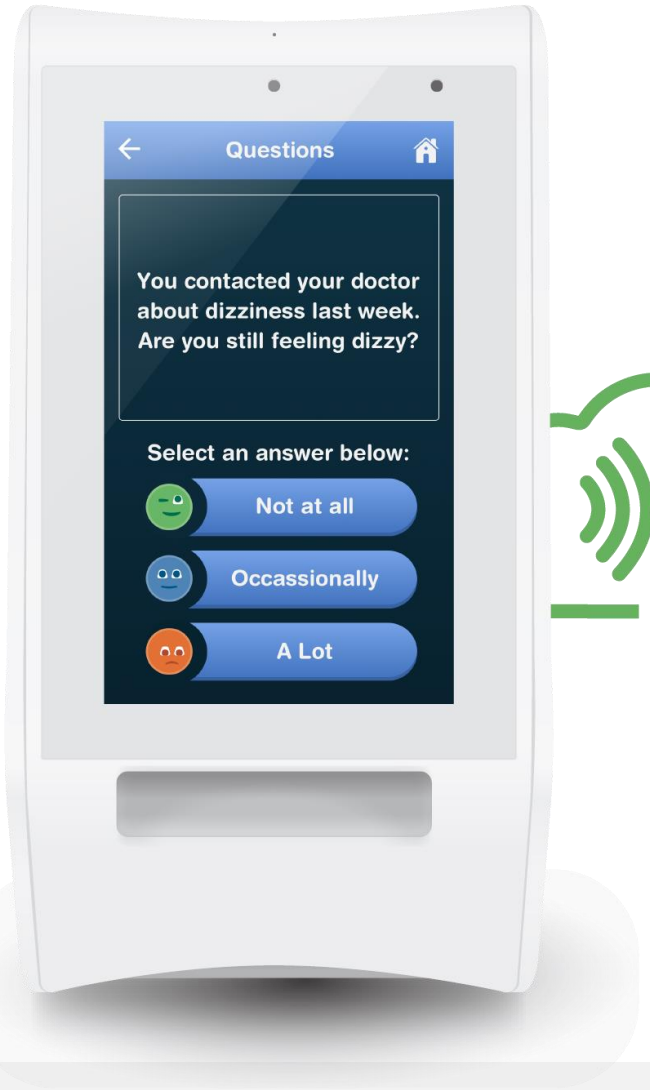
Helping people receive the care they need while living at home, aging in place

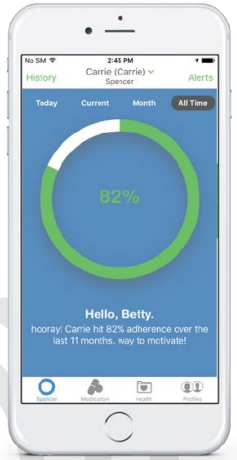
- **Banner Health, United States**

***Telehealth solutions*** *give at-home patients access to specialized service providers*

# IoT-based medication management (adherence) device enhances patient engagement by digitally connecting patients, professionals and caregivers

Medication device in patient's home




Medication Assist mobile app for caregivers


Medication Care online portal for pharmacists and clinicians

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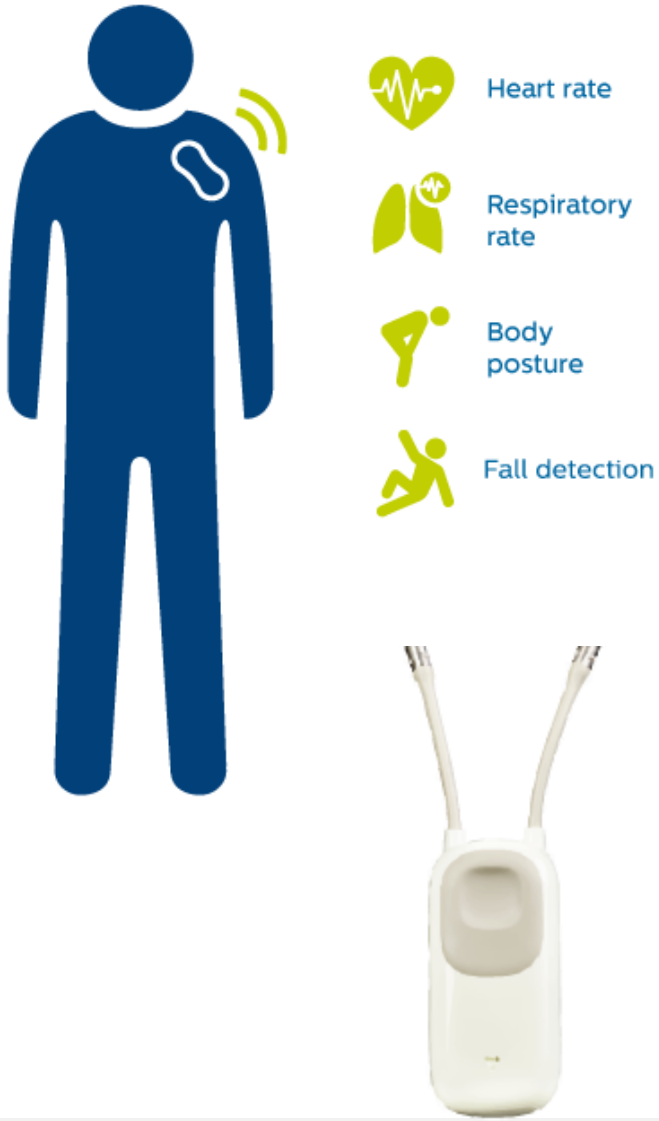
PHILIPS

# Connected parenting - Child monitoring

# GoSafe Mobile Help Button “IoT Hub” with Connected Health Patch





PHILIPS

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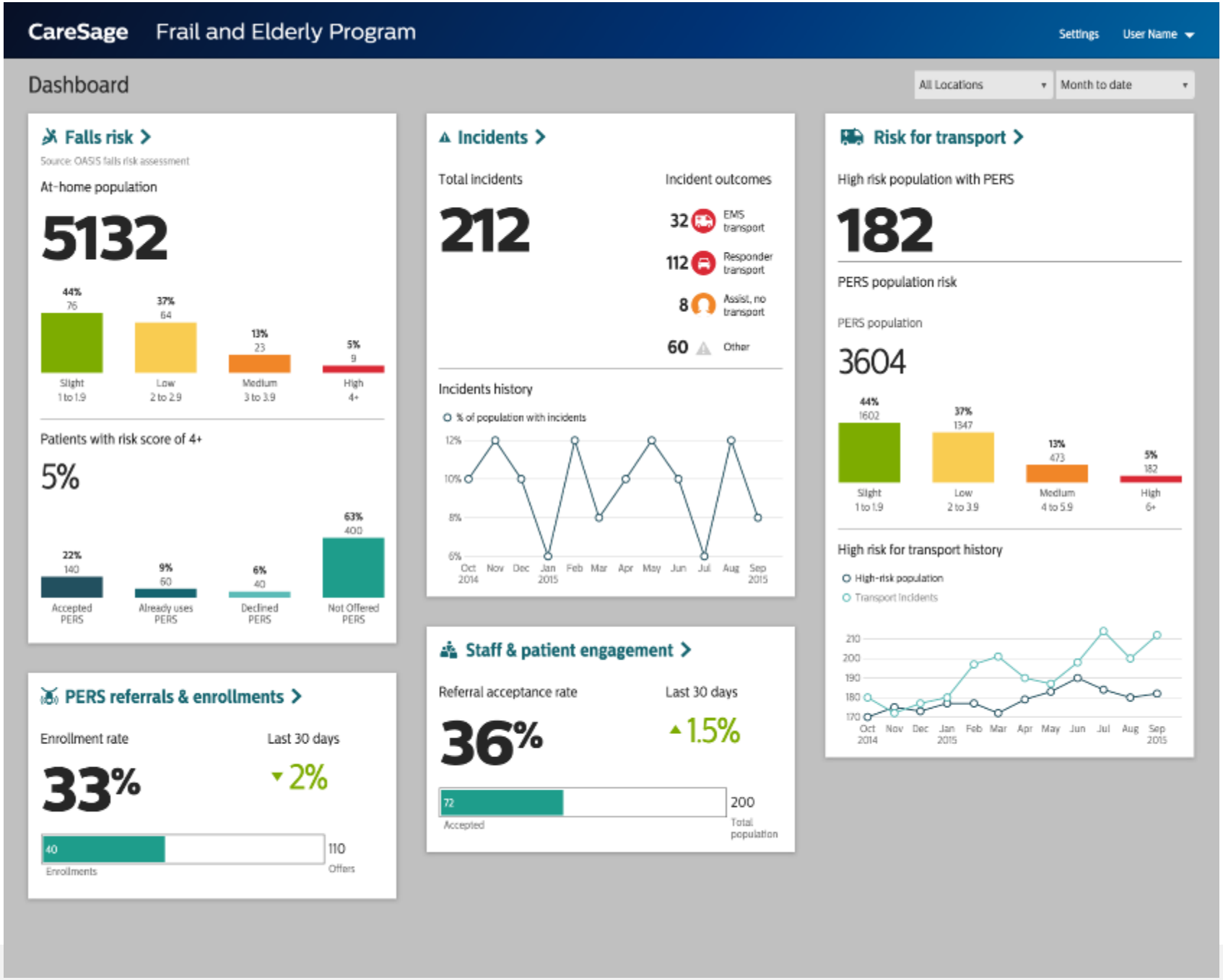
# Predictive Analytics and AI Dashboard

- No. of Incidents
- Risk of Transport
- Risk of Fall
- Aids Interventions



# Senior Home Safety IoT and Wandering Use Case (Geo-fencing)


- GPS and Intelligent Breadcrumbs relaying GPS “snapshots” every few minutes to back-end.
- Text alerts sent to Caregivers with updated location (LAT/LON) once beyond the smart home geo-fence perimeters

**Intelligent “Bread Crumbs”**

**Assisted GPS**

Surveillance drone is launched with video and GPS tracking

# Wireless Ambient Sensing Technology

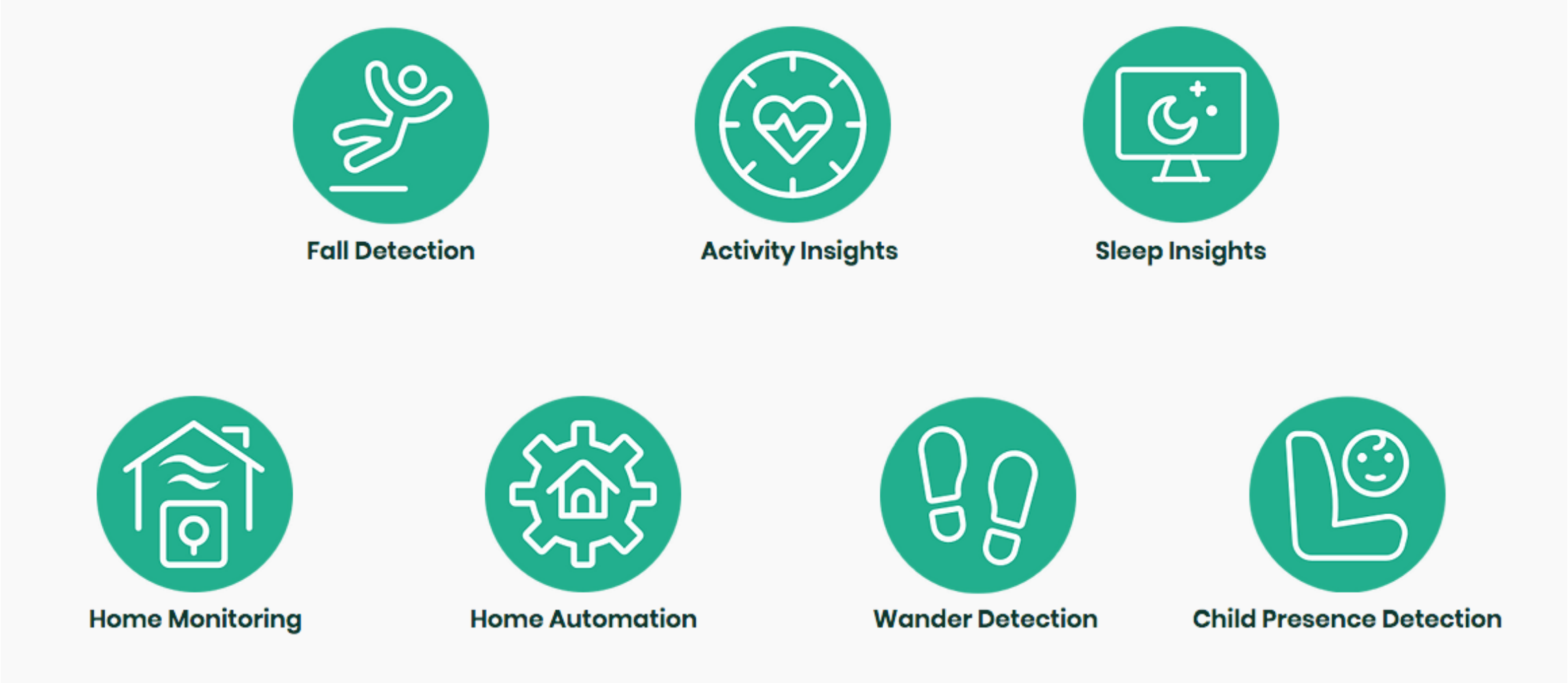
- Advances in wireless ambient sensing in the home/residential space allows for capabilities to detect falls, reducing the need for PERS pendants and wearables.
- Companies include:
  - Origin Wireless
  - Aerial Networks
  - Cognitive
  - Nami.ai
  - Vayyar – Alexa Together





- Fall detection accuracy is in the range of 95-97% and put into working products

# Use Cases: Wireless Ambient Sensing Technology



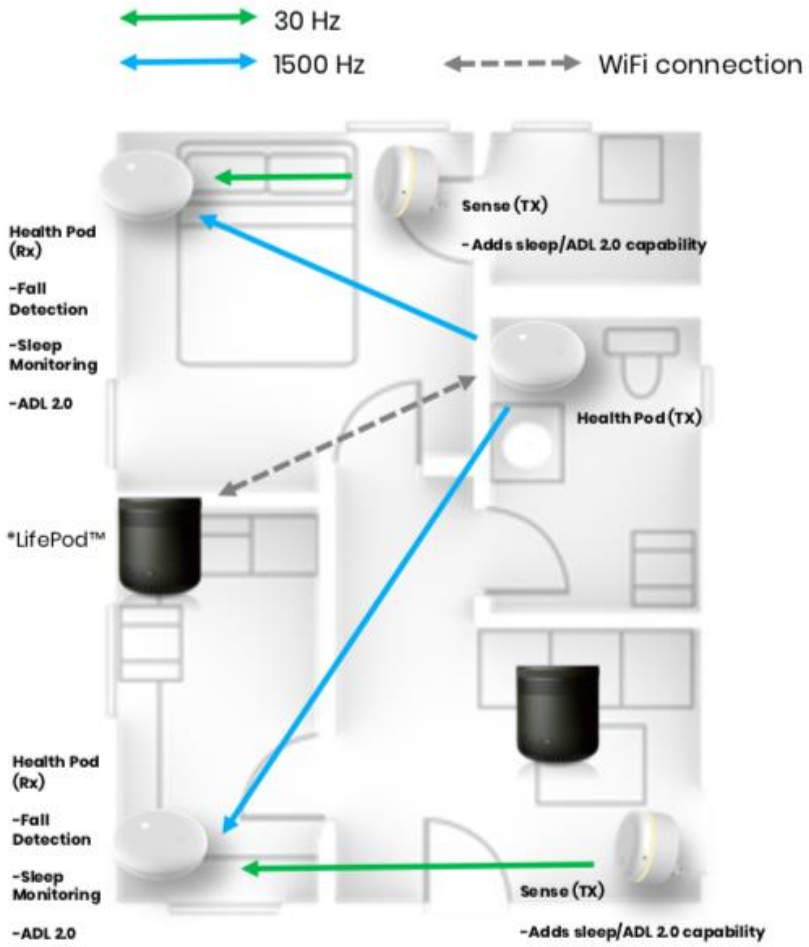
# Vayyar – mmWave Radar Ambient Sensing Technology

## 4D imaging radar: Vayyar Care's advanced sensor technology

- Supports a $140^0$ azimuth (horizontal) and $70^0$ elevation (height) field of view

- Wall-mounted sensor (5 feet off floor) monitors a coverage area of $169ft^2$

# Origin Wireless – WiFi Ambient Sensing Technology




## Overview

Bundle of AI Activity, Sleep, and Fall Monitoring. Add additional Sense devices to the AI Fall Monitoring Kit to achieve higher resolution of your loved ones' daily activity and sleep. Combines all use cases of AI Activity, Sleep, and Fall Monitoring

**Sense™**
Activity + Sleep Monitoring

~500 sq ft of coverage
Cost: $25

**Health Pod™**
Fall Detection & Monitoring

~750 sq ft of coverage
Cost: $120

## Say hello to

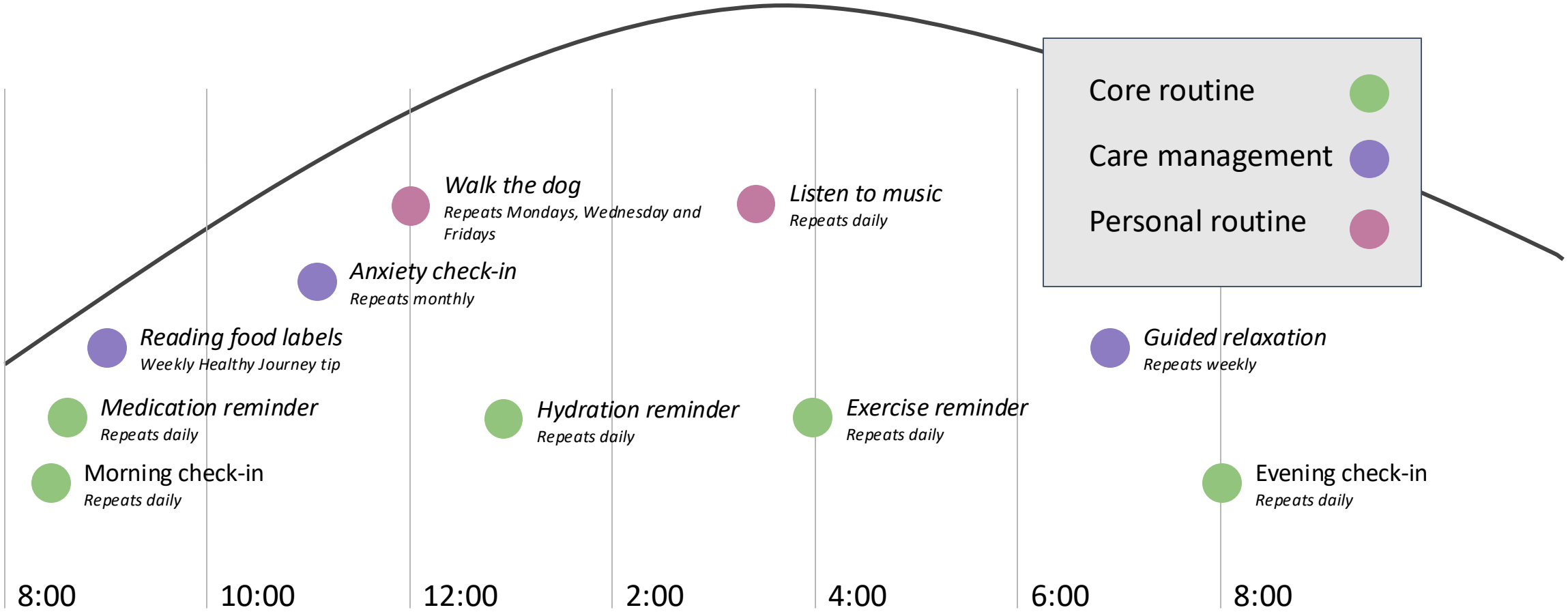
# LIFEPOD

LifePod's proactive voice platform anchors the caregiving and aging-in-place ecosystem to manage social, behavioral and medical needs, increase engagement and reduce isolation

- Proactive
- Holistic
- Always On
- Data/AI-Driven

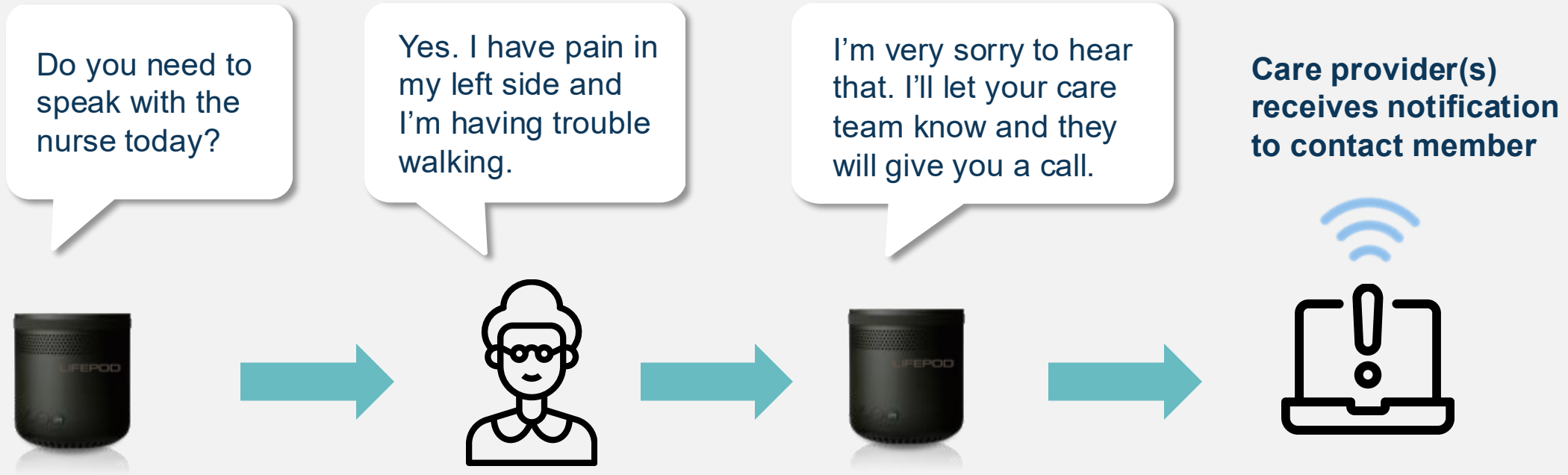
**Good morning, Mary. How did you sleep last night?**

# A Platform Personalized to the Arc of Each User's Day



# Users Communicate with LifePod Using a Natural Speech UI

LifePod's advanced Natural Language Processing (NLP) understands human responses and converts them into meaningful insights and notifications for the care team.



FITTING IT ALL TOGETHER

# LifePod is the Next-Generation User Interface for Aging-in-Place

and the center of many new revenue streams

Smart Home

Remote Monitoring

Fall Detection

Clinical Engagement


Pharmacy

Caregiver Engagement

Accessibility

# Sensor-driven Proactive Voice Validation and Notification

## Fall Detection via Ambient Wireless Fall Sensor:

**Wireless Sensor:** Dad's wireless fall detection sensor detects a fall with minimal motion after the fall.

- **LifePod**: "Hello Dad, this is LifePod, I detected a fall. Do you need emergency help?"
- **Care Recipient (Dad):** "Yes, I've fallen and hurt my leg. I can't get up."
- **LifePod**: "Okay, please remain calm.  Help is on the way. I've notified your care team and emergency service vehicles are coming right away."
- **Care Recipient (Dad):** "Thank you."
- **Caregiver (Son): TEXT message**: "LifePod Alert: Your Dad's response was POSITIVE or YES to the question: "I detected a fall. Do you need emergency help? *[The emergency call center has been notified and EMS dispatched to Dad's home.]*

# Improving Quality of Life for CareGivers and Care Recipients

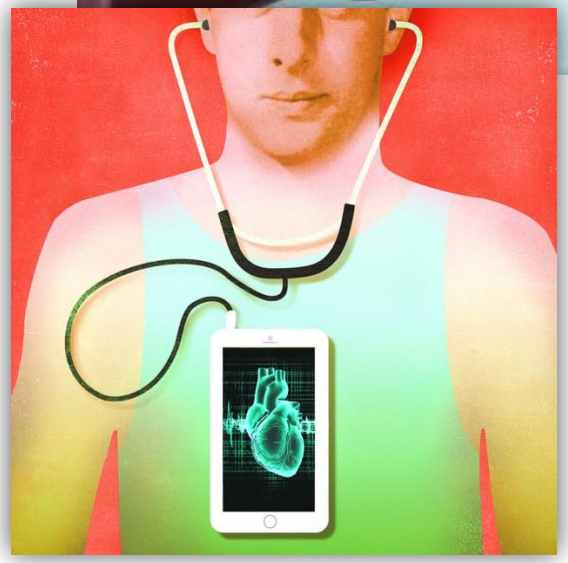
For Family Care and Support


For Patient-Centered Healthcare in Residential Homes

For Community Care and Support

# How Smartphones and Wearables are transforming connected Healthcare

Powerful new apps are turning our smartphones into mobile medical clinics – could this help solve the issue of rising healthcare costs?




# Wearable Continuous Monitoring

World's smallest ECG patch.

## Wearable Heart and ECG Monitor Patch

Designed for in-clinic and remote patient monitoring applications, the multi-function cardiac patch can live stream multiple parameters to a mobile device or the cloud. It is reusable, rechargeable, and can last up to 14 days between charges with live streaming - ideal for mobile cardiac telemetry and other ambulatory cardiac monitoring situations.

This powerful cardiac patch has been used in multiple studies including AF detection, coronary artery disease, stress and depression, and more.

- ✓ Live streaming and recording capabilities
- ✓ IoT-enabled
- ✓ Water resistant
- ✓ Smallest ECG wearable on market
- ✓ Reusable, with a 14-day rechargeable battery (case included)
- ✓ 2-year lifespan and interactive symptom flagging
- ✓ Ages 18 and up


**FDA Cleared Parameters:** ECG

**Additional Parameters:** Skin temp, Heart rate, 3-axis accelerometer

# Cellular Peripherals (where Wi-Fi and BTLE is not available)

**Devices in Scope:**

- Cellular Blood Pressure Monitor + Cuff
  - Simple one button operation, wide range cuff and XL cuff supported; irregular heart beat alert
- Cellular Scale
  - Weight capacity up to 550 lbs.; non-slip platform surface; can store up to 100 readings; 30% larger than standard scales
- Cellular Pulse Ox
  - Oxygen Saturation and Heart Rate
- Cellular Glucometer
  - Reliable and immediate cellular transmission of blood glucose readings; unlimited test strips




# Bringing this all together…


We are enabling the transformation of healthcare  to a smart connected and networked, patient-centric model

# Key Thoughts and Perspectives


- We should maximize the full potential of the smart home and Internet of Things to enable connected care (sensors, data, connectivity, data analytics, data presentation, dashboards and user interfaces)
- IoT for health, remote monitoring and Aging Well services requires a hugely scalable, secure infrastructure and platforms, i.e. the EMR and Health Digital Platform for AI and Insights
- Ambient Sensing, Mobile technologies (cellular) and the Voice UI will be the significant interfaces for connected personalized health care and remote monitoring
- To keep us connected, easy to use portals, dashboards, and mobile apps for care communication and collaboration to care givers, health care providers, customers and healthcare organizations is key.
- We are seeing the digital transformation of a smart home, connected care and health informatics unfold to benefit us all in the near future.

LIFEPOD®

# Voice Care Tech Holdings LLC

## Contact:

**Alan R. Bugos**

CTO, COO, Board Advisor
alan@lifepod.com

*Icons from Flaticon.com – Eucaliy, Freepik, pongsarkornRed*

# 5. Smarter Homes & Buildings Podcast
## Marta Klopotowska (ASHB)


ashb.com/podcast

Join industry experts and leaders from around the globe as they discuss everything smart home and intelligent buildings.

Apple Podcasts

Spotify

ASHB is looking for guests and hosts for future pre-recorded episodes. Contact admin@ashb.com for more information.

**Recent Recordings:**

- Basement Flooding Isn't Inevitable: How Technology Can Save Your Home
- The Science of Light: How Circadian Lighting Enhances Sleep, Mood & Performance

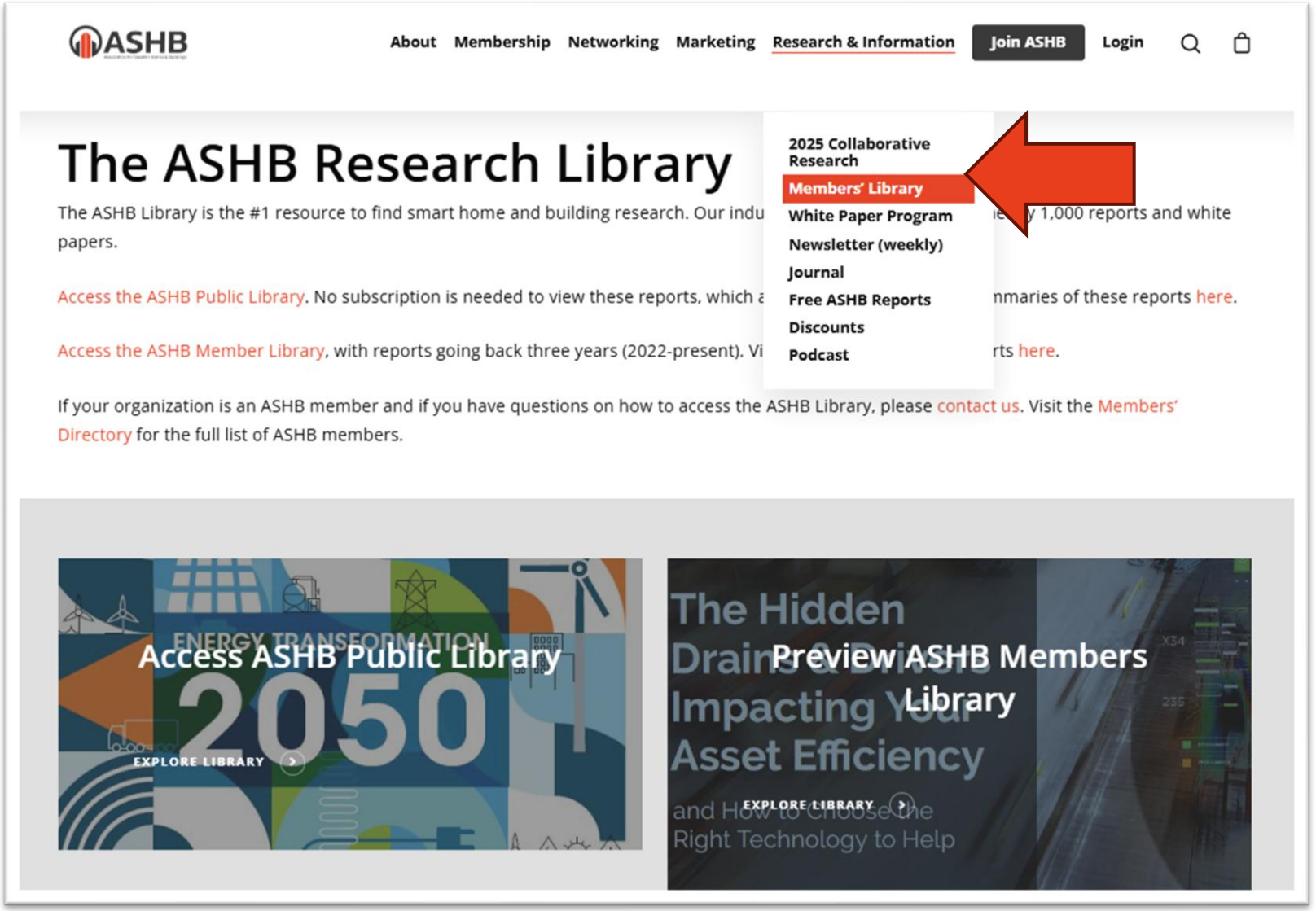
# 6. ASHB Whitepapers
## Ken Wacks (Ken Wacks Associates)

ASHB
Research Program

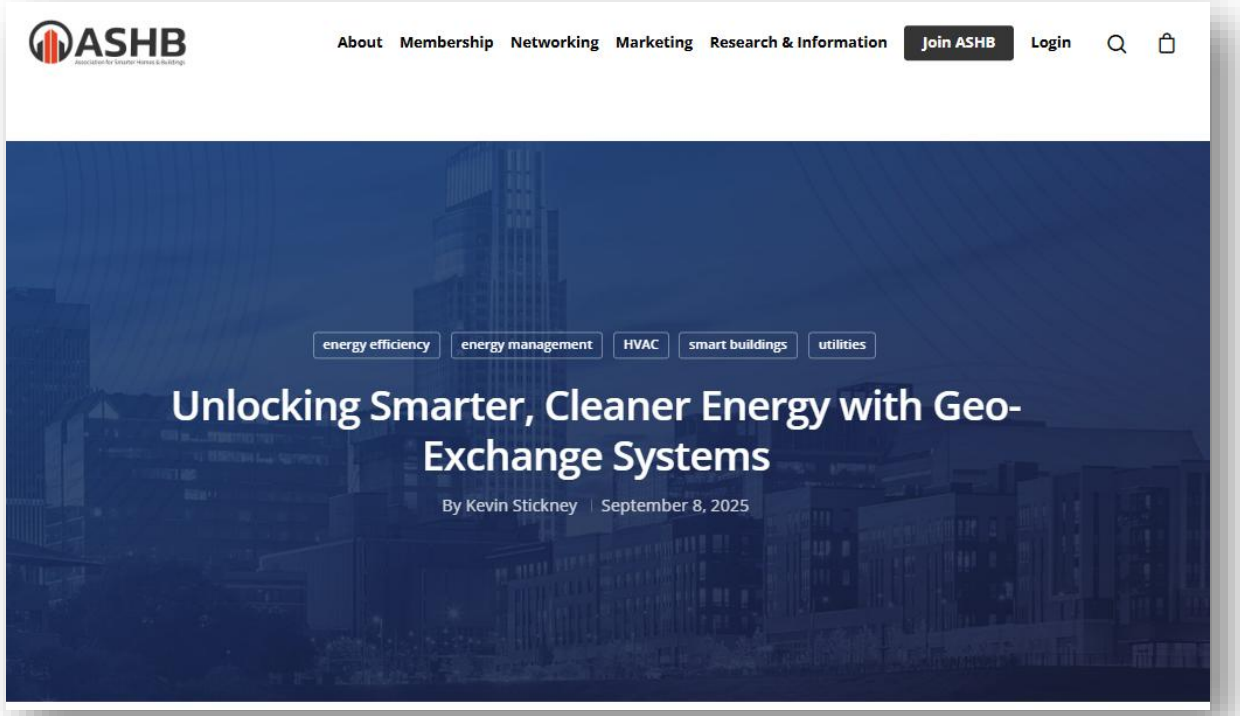
Published IBC White Papers can be downloaded at:
ashb.com/whitepapers
Send proposals to admin@ashb.com

### Recently Published

# 6. ASHB Research Library
## Ken Wacks (Ken Wacks Associates)



# 7. ASHB Journal
## Ken Wacks (Ken Wacks Associates)




The ASHB Journal aims to educate and inform the ASHB membership and industry at large on emerging research, issues, challenges, and opportunities in the smart home and building sectors.

New articles are posted to the ASHB website, included in the weekly NewsBrief, and circulated on Twitter and LinkedIn.

**Send proposals to admin@ashb.com**

**Recent posts:**

- **Ken Wacks' Perspectives: A virtual tour of CES 2025**
- **Unlocking Smarter, Cleaner Energy with Geo-Exchange Systems**
- **Ken Wacks' Perspectives on CES 2025: Focus on AI and Robotics**

# 8. New Business
## Ken Wacks (Ken Wacks Associates)

### New SHC Business?

# 9. Announcements
Marta Klopotowska (ASHB)

## Upcoming Events

**Canada Light Expo**
**November 12-13 | Toronto, ON**

**Future of Video - Business of Streaming (Parks Associates)**
**November 18-20 | Marina Del Rey, CA**

**CES**
**January 6-9 | Las Vegas, NV**

**AIoT World Expo**
**February 10-12 | Ft. Lauderdale, FL**

# 10. Adjournment
## Ken Wacks (Ken Wacks Associates)

**Next SHC Meeting: February 2026**

**Association for Smarter Homes & Buildings (ASHB)**

**admin@ashb.com | www.ashb.com | www.ashb.com/shc**

**Connect to what's next™**

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Smart Home Council