

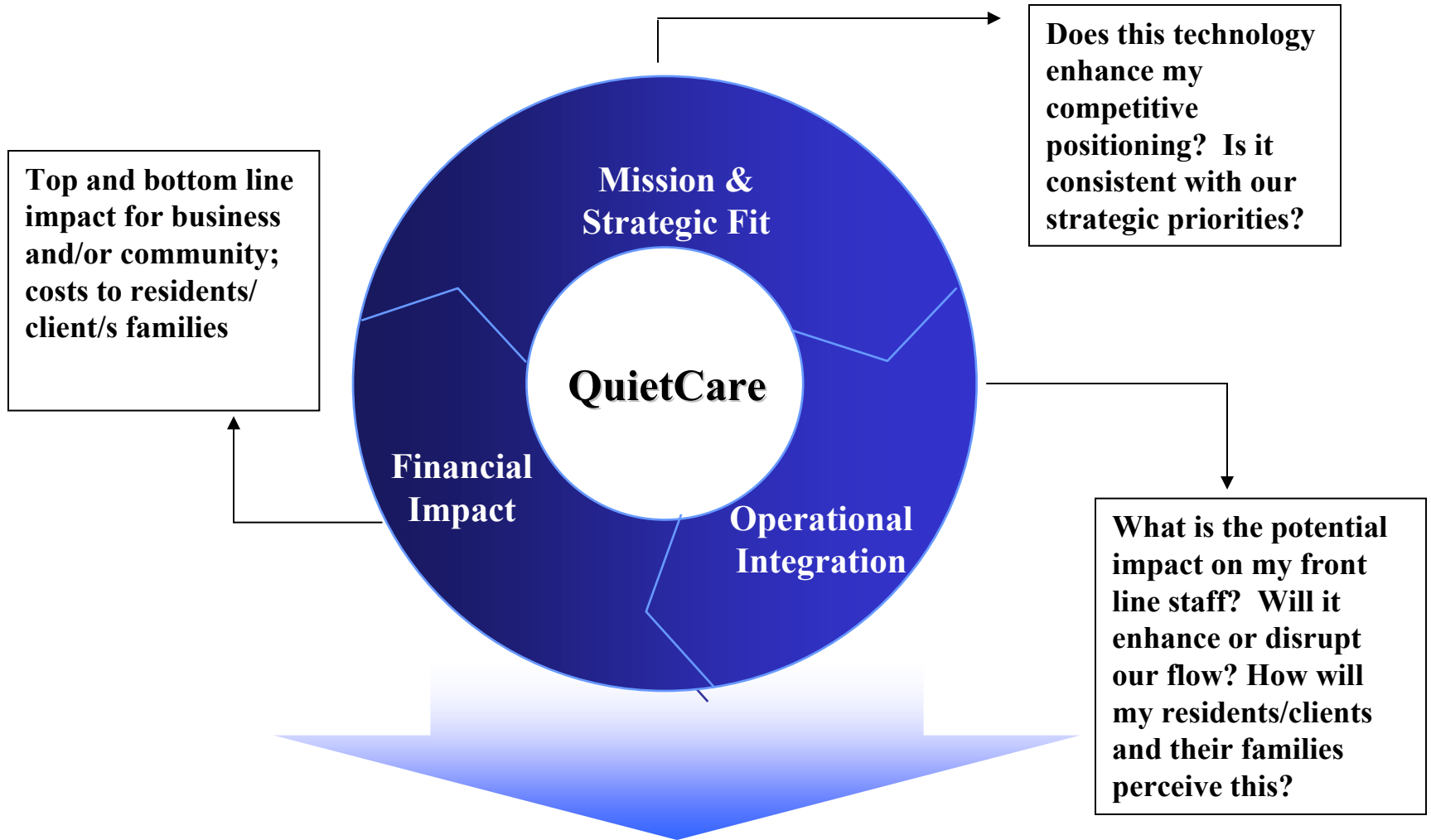
# QuietCare Program

## Discussion

# Agenda

- ❑ **Criteria for the selection of Technology & Implementation**
- ❑ **Update**
  - **Product/Feature Enhancements**
  - **Market Developments**
  - **Industry Involvement**

# Our Perspective On Technology



**Any technology adoption represents a risk. Our objective is not to provide technology but to provide a partnership to support a solution that meets your needs.**

# Not About Technology But The Implementation

## Criteria To Consider When Evaluating Technology?

- ❑ **Meets a critical need** – Does the solution fulfill a mission-critical strategic, financial, and/or operational need?
- ❑ **Efficacy** – Does the solution perform substantially according to expectations or exceed expectations?
- ❑ **Return on Investment/Cost Effectiveness** – Does the end result justify the means? What are the alternative means and how do they compare?
- ❑ **Ease of Use** – Do staff using the solution day-to-day find it intuitive and user friendly?
- ❑ **Low Maintenance** – Does the solution require the time and resources to maintain?
- ❑ **Improved Accountability** – Does the solution help the staff to improve accountability and performance?

# QuietCare - A Caregiving Tool Developed by Experts

- ❑ **QuietCare is the result of twelve (12) years of research and development** by two professors and gerontologists at Drexel University, partly funded by NIH.
- ❑ **The idea for QuietCare** was born when one of the professors was in Ireland for his research on different care models of various cultures. The idea of a “signaling” system was an insight from a story of a son using “smoke from the chimney” as a sign that everything was OK with his elderly father who lived alone. The smoke was an important signal because it indicated a normal behavioral routine for his father – that of putting on his pot of water to brew tea first thing in the morning. The absence of smoke, i.e. the “abnormal” behavior was an important indicator of a potential problem.
- ❑ **QuietCare is patented and unique** from any other activity monitoring system. QuietCare is the only “intelligent” automated system in the market that can “learn” each individual’s norms automatically and send out notifications and alerts based on deviations from each person’s norm.

# **We are a service provider, not a product company.**

## **QuietCare Medical Advisory Board**

### **Robert N. Butler, MD**

- Professor, Mt. Sinai Medical Center, NYC
- Founder, President, CEO of the International Longevity Center

### **Terry Fulmer, RN, Ph.D., FAAN**

- Professor; Head, Division of Nursing, NYU

### **Jerry Johnson, M.D.**

- Chief of Geriatrics, University of Pennsylvania

### **David M. Kutzik, Ph.D.**

- Associate Professor of Sociology, Drexel University

### **Rick Moody, Ph.D.**

- Director of Educational Programs, AARP

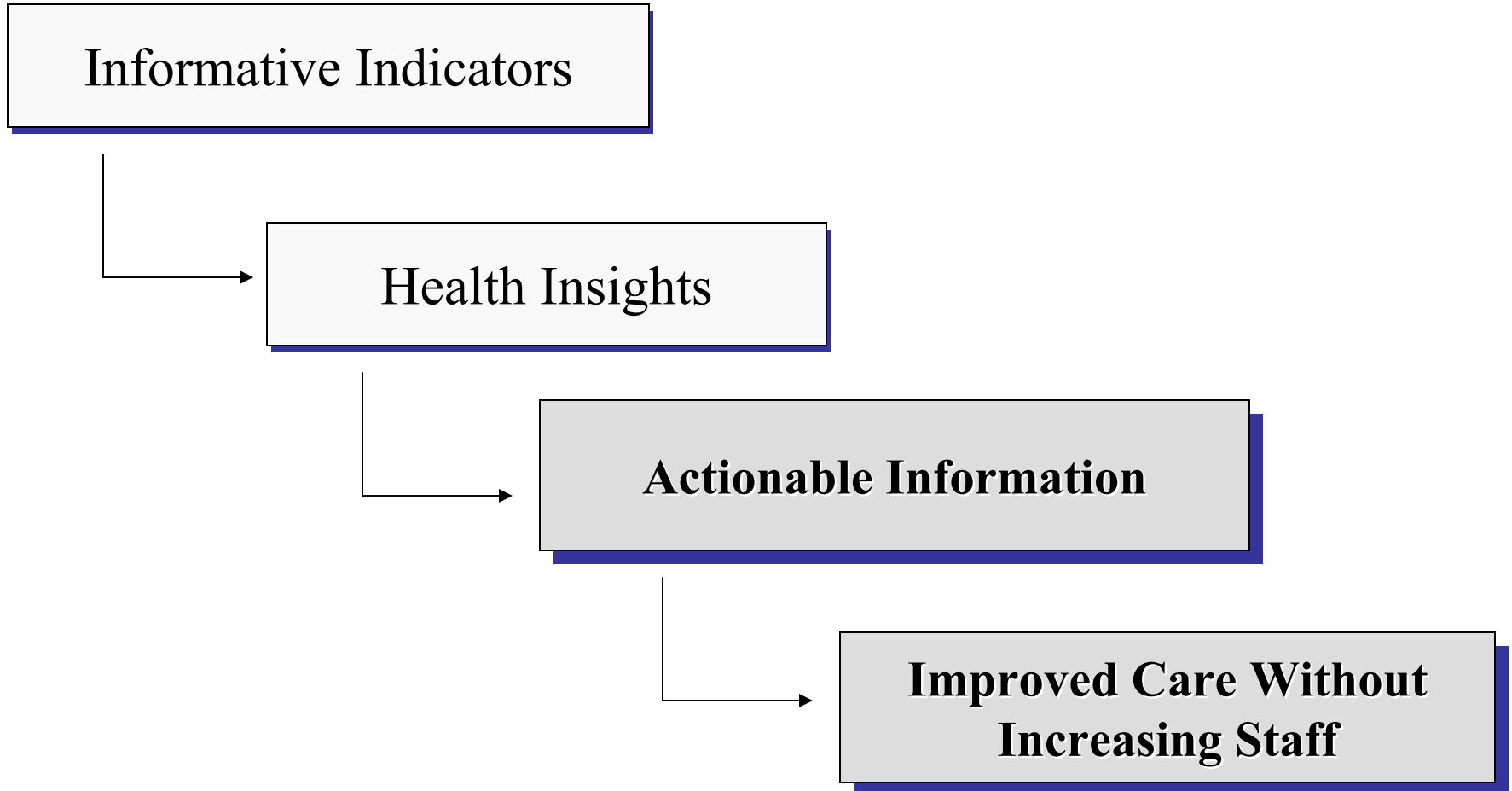
### **Robert Roush, Ed.D.**

- Director, Texas Consortium of Geriatric Centers at the Huffington Center of Aging
- Associate Professor, Baylor College of Medicine

### **Jeanette Takamura, Ph.D.**

- Dean of the School of Social Work, Columbia University
- Former head of the Administration on Aging

# The Essence of QuietCare



# Applications of QuietCare

## Flexible Features That Address Levels of Care.

### Independent Living

- **Optional 24-hour monitoring via Security Associates International (SAI, Inc.)**
  - For potentially urgent situations, SAI will call senior first and, if necessary, caregivers and/or 911
  - For non-urgent situations (ex. changes in bathroom activity), SAI will call caregivers
- **Optional emergency call system for greater safety and value**

### Assisted Living

- **5 – 7 sensors used to signal/help manage common issues such as:**
  - Bladder issues (incontinence, UTI, diarrhea)
  - Medication compliance
  - Illness (flu, pneumonia, virus, infections)
  - Falls inside bathroom
  - Sleep disorders
  - Night time wandering
- **Apply institutional context, for example:**
  - “Meal Prep” can be good indicator of proper hydration
  - “Meds” can be used to ensure that meds administration is done timely

### Memory Care

- **4 – 7 sensors for specific risk factors, focusing especially on night-time**
  - Wandering
  - Fall Risk – night motion indicator
  - Illness
  - Sleep disorders
- **Installation configured to various housing settings**
  - Group home (3 – 4 sensors)
  - Memory care wing within AL community (5 – 7 sensors)
  - Optional chair sensor and mattress pad (in beta testing now)

# An Assisted Living Community's Critical Need

## How does the community increase length of stay...?

- **Predominantly Fixed Cost Structure (approx 80%)**
  - Debt service – approx. 30%
  - Salaried staff – approx. 30%
  - General and administrative – approx 20%
- **High Vacancy Costs** : 18 – 27 mo. average length of stay and shrinking + increasing competition.
- **Ways to Achieve High Census**
  - **The costly way** - marketing to attract new residents to replace those who have left
  - **The profitable way** – **extend Length of Stay** which increases profitability per resident.

**Adding just one (1) mo. to the average length of stay has a significant bottom line impact.**

# **An Assisted Living Community's Critical Need** **...while still meeting the needs of its residents cost effectively?**

- ❑ **Providing the services at the “Right” cost structure**
  - Higher frailty levels mean higher need for services
  - The community must find an efficient and cost effective way to provide these higher levels of care **by taking the guesswork out of the process and do more with existing staff levels.**
  - The cost of providing these higher level services are predominantly variable; **thus the more services a community “sells” the higher its profit.**
- ❑ **Getting services accepted by residents and family** – a rule of thumb is that if a resident and family member can refuse a service, they will, due to:
  - Thrift
  - Denial
  - Indifference (“dump and run” phenomenon)

**The more residents you get on the right care plan sooner, the higher the incremental service revenue and the better the outcome for residents.**

# What Does QuietCare Do for Care Staff?

## Case Management Tool For Better Outcomes

### ❑ Produce Better Outcomes.

- **Extended average length of stay** - If staff systematically practices Early Detection + Early Intervention, they will significantly increase the average length of stay of each resident in their community.
  - **Pro-active and timely response to emergencies** - Urgent situations can be detected more immediately.

### ❑ More Efficient Care Planning and Care Delivery.

- **Prioritization tool** - The automated notification/alerting feature enables healthcare management by exception, enabling staff to prioritize services and know...
  - Who to focus on.
  - When to focus on each resident.
  - What the problem is.
- **Ongoing Care Planning Tool.**
  - Helps staff to provide cost effective customized services for a resident population that spans a broad spectrum of frailty and need.
  - QuietCare data helps staff produce a more “customized” care plan and to adjust that plan immediately once change is detected.
  - Improved targeting and allocation of nursing/HHA resources, enabling higher quality, more directed and focused care without increasing staff.
- **More productive interactions with residents and family members** – QuietCare’s objective information helps overcome denial and shorten the time it takes to get residents and family members to buy in to the right care plan.

# What Does QuietCare Do for Residents and Families?

**A 24-hour passive “Safety Net” that provides tremendous peace of mind**

- QuietCare is the least invasive way to **help frail residents age in place** through early detection, early intervention, and preventative case management.
- The motion-sensor based system **preserves the resident’s privacy and dignity**; no cameras or microphones are used.
- QuietCare **empowers family members and residents to choose** greater independence and wellness vs. responding to crises.
- **Pro-active alerting** without pressing a button – residents often cannot or do not want to “push the button” or “pull the cord”.
- Early detection combined with early intervention **reduces out of pocket costs** by helping to prevent hospitalizations and by extending the time that the senior can remain in the assisted living environment, avoiding the higher cost of skilled care.
- **Provides priceless value** - avoiding preventable hospitalizations and health crises enables a resident to “age in place” rather than move to a costly nursing home.

# Expanded Functionality Based on Client Feedback

## New features implemented (last 9 months) and planned

- ❑ **Website improvements** – Richer detail, greater digestibility of information, enhanced charting and activity/status summaries – *done*.
- ❑ **Specific Door Sensor & Activity Indicator - done.**
  - Monitors entry into and exits from the apartment.
  - **Importance:** Provides information about potential “wandering”.
- ❑ **24-hour bathroom activity - done.**
  - Will indicate changes in overall bathroom activity level.
  - **Importance:** Provides further insight into a critical ADL pattern.
- ❑ **Senior-specific wake-up window - done.**
  - Alerting based on senior-specific window for wake-up.
  - **Importance:** Enables more immediate response to potential problem.
- ❑ **Night-Time “Wandering” – done.**
  - Alerts staff when senior leaves his/her apt between midnight and 6am.
  - **Importance:** Enables immediate intervention.
- ❑ **Night Motion - done.**
  - Alerts staff when senior gets out of bed between midnight and 6am.
  - **Importance:** Enables staff to mitigate high fall risk.
- ❑ **“Incapacitation” Detection – coming soon.**
  - Detects potential falls or other incapacitation anywhere in the apt.
  - **Importance:** Enables earlier response time to urgent crises.

# Industry Involvement

- **CAST: Center for Aging Services Technologies (AAHSA)**
  - Living Independently is a member and sponsor
  - CAST Commission Member
- **Continual Health Alliance: Led by Intel with support of CAST, AAHSA**
  - Collaborative industry organization dedicated to bringing together standards and diverse technology to create new health care solutions
  - Living Independently is a member at the \$35,000 level
- **Presentations and Sessions**
  - Currently working with 2 providers that work with housing and community based services
  - Canada has a shortage of “assisted living” apartments, need is in community services
- **Contributions to Industry Publications and Speaking Engagements**
  - Dr. Tony Glascock, Dr. Dave Kutzik , and David Stern MSW regularly contributes articles for Nursing Homes, Assisted Living Executive, Assisted living Consult, and other trade publications
  - Allison Gage, Living independently has authored three articles to date
    - ADVANCE Long Term Care magazine – “RFID Applications in Assisted living”
    - MAGiC Journal – “Advanced Technology Helping to Meet Challenges of Aging and Caregiving”
  - Presentations/sessions at MHHA Institute, NCOA, LSN, NYAHSA, IAAHSA