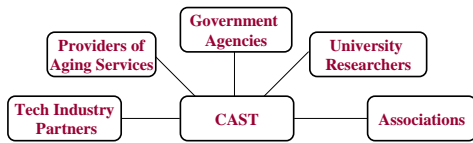


Transforming the Future of Aging

David J Stern., Commissioner

Center for Aging Services Technologies (CAST)

What is CAST?



A national coalition of more than 400 organizations working together to improve the aging experience through technology

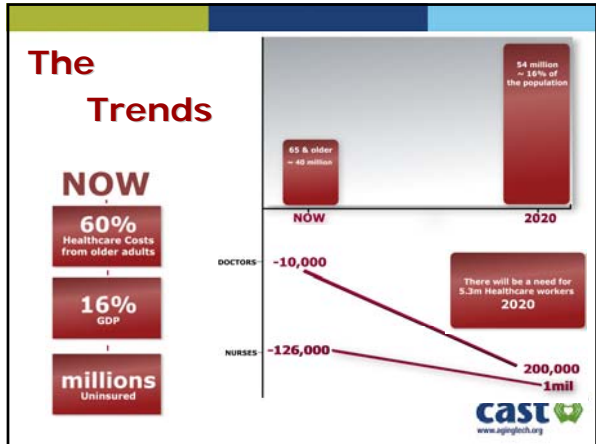


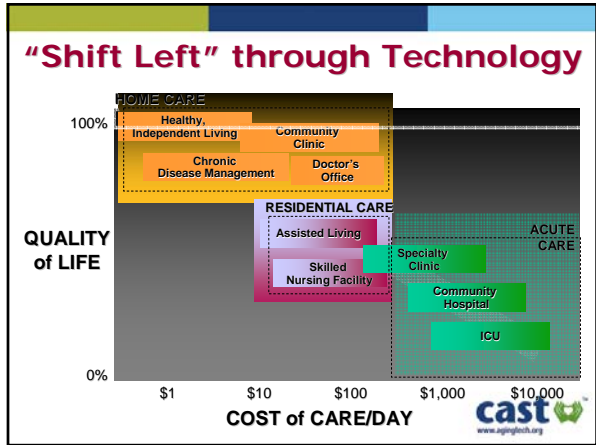
Why We're Here

CAST Mission

- Help older adults **maximize** their **independence**
- **Support** professional and family **caregivers'** needs
- **Improve quality** of care and quality of life
- **Reduce** our nation's health care **costs**
- **Increase** aging services providers' **efficiency**











Hear the experts...


cast www.agigitech.org

Value

Innovative care models with smart technology

 Seniors At Home Longer	 Earlier Intervention	 Efficiency	 Costs
---	--	---	--

...more efficient care with reduced care burden




Example Proof: Cost-Effectiveness

Three-month study
on the impact of
monitoring
technology on care

↓ Billable
interventions
Hospital days
75% cost savings

Transferred more time away from paperwork
and towards direct care and reduced workloads.



**Higher Perceived Workload for
Caregivers Without Monitoring
Technology**



Without Monitoring
Caregivers Tend To Fewer Residents
 Resident to Caregiver Ratio 6.62

cast www.agtech.org

With Monitoring
Staff Care for More Residents
 Resident to Caregiver Ratio 12.83

cast www.agtech.org

Home for Life

Senior (Quality of Life)

Supportive Services

Safety Wellness Health Socialization

Physical Environment

cast www.agtech.org

State of Aging Services Technologies



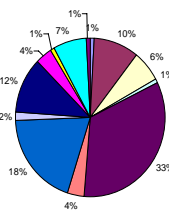
Categories of Aging Services Technologies

1. Safety in the Environment
2. Physical & Mental Health/ Wellbeing
3. Social Connectedness to others
4. EHRs & Point of Care/ Point of Service



With Regard to Safety, Health and Wellness which technology solutions best meet your business/mission objectives


- Electronic Medical/Health Records **33%**
- Medication Management **18%**
- Fall Prevention/Detection **12%**
- Care plans/planning and Coordination **10%**



- Biometric/vital signs information and monitoring
- Care plans/care planning/care coordination
- Clinical/care documentation
- Early identification of the onset of illness
- Electronic medical/health records
- Emergency response capacity
- Fall prevention/detection
- Health and wellness assessments
- Medication management
- Personal care/daily life activities
- Physical and mental exercises
- Recreation/activities
- Wander detection/management

Value for:

Older Adults	Informal Caregivers	Professional Caregivers		
		Service Providers	Healthcare Professionals	Payers
<ul style="list-style-type: none"> ◇ Health self-management ◇ Sense of security ◇ Prolonged/enhanced independence ◇ Improved quality of life 	<ul style="list-style-type: none"> ◇ Opportunity to participate in management of the health and care needs of their loved ones ◇ Peace of mind ◇ Reduced care burdens and strains ◇ Improved quality of life 	<ul style="list-style-type: none"> ◇ Dispatching appropriate timely services as needed ◇ Improved caregiver efficiency ◇ Reduced caregiver workloads ◇ Improved customer satisfaction ◇ Revenue opportunity 	<ul style="list-style-type: none"> ◇ Detection of early disease onset ◇ Early and preventive interventions ◇ Chronic disease management ◇ Monitoring efficacy of interventions ◇ Improved efficiency ◇ Improved customer satisfaction 	<ul style="list-style-type: none"> ◇ Enhanced quality of care ◇ Reduced care costs ◇ Improved customer satisfaction

 www.agingtech.org

Consumer Interest

AARP Research, March 2008

- Conducted two surveys using CAST vision video images:
 - 907 65+ older adults (not boomers)
 - 1023 caregivers ages 45-75
- ✓ Found a lack of awareness of available technologies but significant interest in utilizing by both seniors and caregivers


AARP Healthy @ Home
 Linda L. Barrett, Ph.D., AARP Knowledge Management
http://www.aarp.org/research/housing-mobility/individing/healthy_home.html

 www.agingtech.org

Consumer Interest

KEY FINDINGS:

- Three-fourths of older adults support the use of telemedicine to diagnose or monitor health conditions remotely in their home
- Caregivers also say that they would be willing to use new technologies to meet their needs in the caregiving role; however, more than 8 in 10 think they will have difficulty persuading the people they care for use these items.
- Both groups are concerned about the costs associated with new technologies.

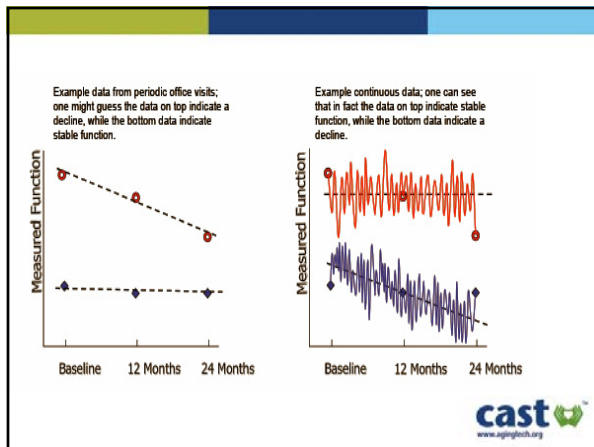
 www.agingtech.org

Sounds Great, But....

- Which technologies will work for *our* organization?
- Which ones will work for *our* clients?
- Which ones will help us meet *our* goals?
- Which ones will be cost effective?
- Which ones will give *us* an edge?







Where Telecare Fits

What do the outer pieces have in common? They seek to replicate remotely the process by which information is gathered in an office or clinic visit.

cast
www.agriotech.org

Safety-Behavioral Technologies

- **Wearable devices** (PERS, automatic fall detectors, fall prevention patches)

cast
www.agriotech.org

Safety Technologies

- **Environment/Passive** (motion-based sensor monitoring systems, embedded fall-detection systems, stove use detectors, temperature/smoke monitors, safe lighting technologies)

cast
www.agriotech.org

Physical & Mental Health/Wellbeing

- **Wearable devices** (activity monitors, cardio monitor, ambulatory blood pressure monitors)
- **Environment/Passive** (motion-based activity monitors, sleep/bed sensors)



Physical & Mental Health/Wellbeing

- **Telemedicine/ Tele-health** (biometrics: pulse, BP, glucose, temperature, weight; daily wellness check; 2-way video health consultations care coordination; medication compliance)
- **Cognitive assesment/ orthostatics/ reminder systems** (under research)



Social Connectedness

- **Phones** (amplified phones, easy to use cell phones)
- **Two-way video conferencing phone**
- **Entertainment/ Theraputainment** (cognitive and/or Physical exercise)



EHRs & Point of Care Technologies

- EHRs
- Point of Care systems; Electronic clinical charting; Documentation systems; Shared care planning systems; e-Prescribing; e-MAR systems; Wound care applications.



Results of Expert Interviews




Opportunities

- Convergent technologies that fulfill a need and make life better for seniors and those who care for them- provide an opportunity and a mechanism for health enhancing intervention, and facilitate delivery of services
- Technologies to ensure continuity of care (EHRs)
- Integrating technologies (interconnectivity)




Barriers	Remedies
<ul style="list-style-type: none"> • Perverse payment system • Liability exposure for providers • Shortage of workforce and immigration policies • Lack of cross state licensure 	<ul style="list-style-type: none"> • Effective advocacy • Evangelization of the vision
<ul style="list-style-type: none"> • Shortage of funding 	<ul style="list-style-type: none"> • Tapping into untraditional funding sources
<ul style="list-style-type: none"> • Perceived intrusiveness-overemphasis on privacy • Inverse relationship between the need for, and the ability to use, technology • Lack of information systems' interoperability and device interconnectivity. 	<ul style="list-style-type: none"> • Better understanding of seniors attitudes towards technology • Designing better technologies




Critical Gaps

- Lack of Awareness
- Technical Uncertainty
- Limited Evidence of Value
- Absence of Business Models



Mitigating the Awareness & Technical Gaps

- Raising awareness through “trusted” agents and awareness campaigns
- Raising the awareness of the LTC sector to the technical and infrastructure requirements for these technologies
- **A systematic approach to R & D using participatory design engaging users**



Mitigating the Gaps in Value and Operational Models

- Planned large-scale demonstration projects with significant financial analysis to prove the value
- Planned experimentations (preferably with large care providers and payers) to find the right business model(s)
- A “Grand Challenge” type competition for business schools to create a “road map” and business model



Consumer Interest

AARP Research, March 2008

- Conducted two surveys using CAST vision video images:
 - 907 65+ older adults (not boomers)
 - 1023 caregivers ages 45-75
- ✓ Found a lack of awareness of available technologies but significant interest in utilizing by both seniors and caregivers

AARP Healthy @ Home

Linda L. Barrett, Ph.D., AARP Knowledge Management
http://www.aarp.org/research/healthy-mobility/individing/healthy_home.html



Consumer Interest

KEY FINDINGS:

- Three-fourths of older adults support the use of telemedicine to diagnose or monitor health conditions remotely in their home
- Caregivers also say that they would be willing to use new technologies to meet their needs in the caregiving role: however, more than 8 in 10 think they will have difficulty persuading the people they care for use these items.
- Both groups are concerned about the costs associated with new technologies.




Which ones will work for our clients?

Example: Technologies that safely keep clients in their homes longer

— Sensor Home Monitoring Technology — Medication Management

Ecumen 900 installations of Quiet Care	Selfhelp	Good Samaritan WellAware	Lutheran Homes of Michigan
---	----------	-----------------------------	----------------------------

cast 
www.agigitech.org

Which Ones Won't Work For Our Clients?

Eskaton Pilots Internet File Sharing & Decides Not to Implement



~~Good technology, but
Barriers to adoption~~

Good Decision = Sometimes, Right Answer is No



Which Ones Will Help Us Meet Our Goals?

Elant Uses Technology to Meet Goals -
Reducing Complications and Potential Sentinel Events

Caretracker		Better Care
Better documentation		
Higher accuracy		
Better reimbursement		

cast 
www.agigitech.org


CAST Policy Initiatives



www.agtech.org

CAST Activities

- Introduced senate bill S.908, and amendments to H.R. 6357 and the stimulus package
- Participating in EHR standardization efforts on the national level
- Launched state technology policy initiative
- Launched pilots initiative to help providers objectively evaluate technologies, compile evidence to change reimbursement
- Creating knowledge and raising awareness: State of Technology reports
- Sharing provider stories and case studies.




www.agtech.org

CAST Policy Efforts

State-Level

- Whitepapers to show best practices in provider implementation and state policies to support Aging Services Technologies California, Pennsylvania, now developing Minnesota
- Aging Services Technology Demonstrations at State Capitols (PA, CA, TX) to advance awareness, piloting, and use of aging service technologies (demo guide for AAHSA state affiliates)
- Resources for state-level advocacy (i.e., stimulus package HIT initiatives)




www.agtech.org

Pennsylvania Medicaid TeleCare Program

Home Telehealth & Telemonitoring

- Reimbursements began Sept. 1, 2007 on a pilot basis
- Covers range of telecare services provided by home health, DME providers, pharmacies or hospitals via AAA contract for specified older adults:
 - Health Status Measuring & Monitoring: \$10/day
 - Activity & Sensor Monitoring: \$200/install \$80/mo.
 - Medication Dispensing & Monitoring: \$50/mo.
 - Personal Emergency Response Systems: \$30/mo.
- TeleCare program approved under new Medicaid aging waiver that began July 2008. Options Program approved 12/09.




Pennsylvania Medicaid TeleCare Program

Home Telehealth & Telemonitoring

Requirements:

- 60+ and financially eligible
- Medical need for the services (Dr.'s order) and evidence that services are not covered under Medicare, State Plan or other third party resources
- Functioning criteria:
 - Meet nursing facility clinically eligible (NFCE) determination
 - Meet at least three of the needs criteria
 - Be cognitively able to operate equipment if needed or have caregiver
- Live in a residence that allows the use of the technology



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

TITLE XIII—HEALTH INFORMATION TECHNOLOGY


SEC. 1301. SHORT TITLE. TABLE OF CONTENTS OF TITLE.

(a) SHORT TITLE.—This title (and title IV of division B) may be cited as the “Health Information Technology for Economic and Clinical Health Act” or the “HITECH Act”.

OFFICE OF THE SECRETARY
OFFICE OF THE NATIONAL COORDINATOR FOR HEALTH INFORMATION TECHNOLOGY

(INCLUDING TRANSFER OF FUNDS)

For an additional amount for the Office of the National Coordinator for Health Information Technology, \$2,000,000,000, to carry out title XIII of this Act, to remain available until expended.



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

Definition of Health Care Provider:

- Hospital
- **Skilled nursing facility**
- **Nursing Facility**
- **Home Health entity**
- **Other long term care provider**
- Health care clinic
- Community mental health center
- Renal dialysis facility
- Ambulatory surgical center
- Physician or group practice



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

- **Definition of Health Information Technologies (HIT)** includes hardware and software used in the *creation of health information*, which could potentially encompass telehealth and biometric telemonitoring technologies
- **Study on Aging Services Technologies:** Proposed by CAST this study by HHS will examine *"matters relating to the potential use of new aging services technology to assist seniors, individuals with disabilities, and their caregivers throughout the aging process"*
- **Study on Financial Incentive Payments for LTC providers:** Study to determine if long-term care providers, long-term care hospitals, and rehabilitation hospitals will also need financial incentives (Medicare/Medicaid) to implement EHR technology prior to 2014.



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

Loans for Health Care Providers:

- Administered by states (states must apply)
- Directed at all health care providers, so LTC providers will be eligible
- 10-year amortized loans may be used by providers for:
 - **Purchase** of certified EHR technology ("certified" TBD);
 - Enhance the utilization of certified EHR technology (which can include costs associated with **upgrading** to meet certification);
 - Personnel **training** in the use of such technology; and
 - Improve the **secure electronic exchange** of health information.

** LTC providers need to advocate being included in their state's strategic plan for projects to be assisted by loans (no one will be knocking on your door)



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

State-level HIT Grants:

Planning & Implementation Grants to states or state-designated entities to encourage development and use of HIT:

- Specific grants and requirements are to be developed by states
- States required to consult with health care providers in developing plans
- CAST encourages Long-term care/aging service providers to:
 - **Get a seat at the table** and be active participants to ensure that infrastructure built from this investment is inclusive of LTC
 - **Advocate that state include language** in grant requirements placing a funding priority on projects that include LTC partners
 - **Build HIT partnerships** with hospital/health system and physicians
 - **Get involved in regional/state health information exchange** facilitators, including:
 - Regional Health Information Organizations (RHIOs)
 - Health Information Exchanges (HIEs)



American Recovery & Reinvestment Act (ARRA)

HIT and Aging Services

"Meaningful Use"

- The ARRA places great emphasis on the "meaningful use" of health information technology, including EHRs in order for acute care providers to receive Medicare/Medicaid HIT incentive payments (the \$17 billion).
- Definition of meaningful use to be determined by Secretary HHS/Office of National Coordinator for HIT and the appointed standards committee
- One of the relevant meaningful use goals for the exchange of health information in the ARRA is for "promoting care coordination"
- Thus, **CAST has recommended that meaningful use of HIT (i.e., EHRs) include having functionality for electronic exchange of health information with long-term care providers.**



Questions?