# **User-Centered Design of Lifeline Systems' Documentation**



## **About Lifeline Systems**



- Leader in the Personal Emergency Response System (PERS) industry for 30 years
- Subscribers can call for help 24/7 by pressing their Personal Help Button and speaking to the Lifeline Response Center through a Communicator
- More than 500,000 subscribers in U.S. and Canada
  - Typically 80+, majority are females
  - Demographics vary widely
  - Given the different rates of aging, increased age increases the probability someone needs our service, but their actual age does not reflect what aspects of our services they require
- Caregivers (and responders) often elderly themselves

## **About Lifeline Systems**



#### How the service works

- Family member inquires or subscriber is referred to Lifeline
- Lifeline takes basic information about subscriber over the phone and sets up an appointment for installation
- A Lifeline Home Service Rep (HSR) installs the systems and trains the subscriber and family on its use
- Subscriber makes a "welcome call" and provides additional information (names of responders, doctors, etc.)
- Subscriber wears pendant, checks in with Lifeline on a monthly basis
- In case of emergency, subscriber sends Help call to Lifeline, Lifeline responds through communicator, speaking with the subscriber to determine what type of help is needed, Lifeline sends the appropriate help









## **About Lifeline Systems**



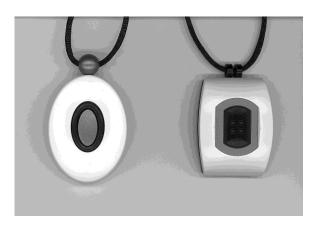


CarePartner Communicator



CarePartner Telephone Communicator

**Classic Pendant** 



Slimline Pendant

## **About the project**



- In Spring of 2005, Lifeline hired Bentley to help update their product documentation
- Lifeline, Bentley and an Ad Agency collaborated on research and shared findings
- Multiple methodologies:
  - Review of customer sales and customer service calls
  - Shadowing of Home Service Reps ←
  - Home interviews & observations ←
  - Focus groups with caregivers & subscribers
  - Review of existing documentation
  - Creation of document design guidelines for older consumers
  - Creation of revised documentation prototypes
  - Usability testing of revised documentation in homes ←
  - Refinement of final documentation

## **Shadowing of HSRs**



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- Lifeline, Bentley and Ad Agency teams conducted shadowing of home service representatives
  - Followed rep for a day, visiting several subscribers
  - Conducted activity in parallel, then merged our findings based on different perspectives

#### Sample findings:

- Subscribers varied widely in the physical and mental capabilities
- Subscribers often formed a bond with their HSR
- New subscribers didn't always read the materials sent to them ahead of time
- Moving furniture was often the most difficult part of installing the system

## **Shadowing of HSRs**









### **Home interviews & observations**



- Lifeline and Bentley teams conducted interviews
  - Made notes regarding subscribers' questions, concerns, and any areas of confusion
  - Took video and photos of the products & environments
  - Conducted in parallel, then merged our findings based on different perspectives
- Sample findings:
  - High level of subscriber satisfaction
  - Subscribers had some concerns about wearing the call button in bed and in the shower
  - Some ideas for making documentation more effective
  - Number of documents could be reduced

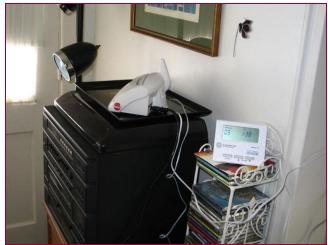




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#### **Revised Documentation**



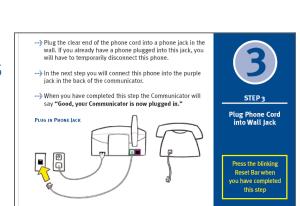
#### Collateral pieces

- Set-up Guide
- User Manual
- Quick Reference Magnet
- Subscription Agreement

#### User Manual

- Spiral bound to lay flat
- Sturdy covers
- Sections identified with color-coded tabs
- Clearly numbered steps
- Increased font size to 14-pt (minimum)
- Larger graphics and more white space





## Usability testing of revised documents



- Bentley team conducted usability testing in homes
  - 10 pairs (elders and their caregivers)
  - Recruited caregivers first a break-through!
  - Made notes regarding questions, concerns, and areas of confusion
  - Took video and photos

### Sample findings:

- Very positive reaction to new documents
- Participants said documents were easy to read
- Participants had no trouble understanding the graphics
- We could make some improvements to the organization of the document, mostly to reduce redundancy















Video clip from usability test

## Take-Aways



- Interactive collaboration between Lifeline, Ad Agency, and Bentley was a strength of the project
- It is important to test documentation
- Parallel activities and learnings led to success
- Conducted several design and testing iterations, refining at each step
- Use of multiple methodologies resulted in rich data from various viewpoints

As a result of the collaboration, the product, documentation, sales collateral and packaging provide a consistent, integrated message to the consumer.

# **User-Centered Design of Lifeline Systems' Documentation**

Bill Prenovitz
Product Manager
Lifeline Systems
bprenovitz@lifelinesys.com

Beth Loring
Director, Design & Usability Center
Bentley College
bloring@bentley.edu