

## Yet Again, Nurses Show Value - Now as Technology Change Agents in an Acute Care Setting

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## Presentation Objectives

- Describe a technology change agent
- Present a technology change agents impact in an acute care setting
- Gain an understanding about nurses' in a role as technology change agents

## Technology Change Agent

- A technology change agent:
  - Bring technology into the standard workflow
  - Promotes use of technology
  - Influences others' attitudes towards the new technology
  - Changes the environment for the adoption of new technology

## Personality Traits

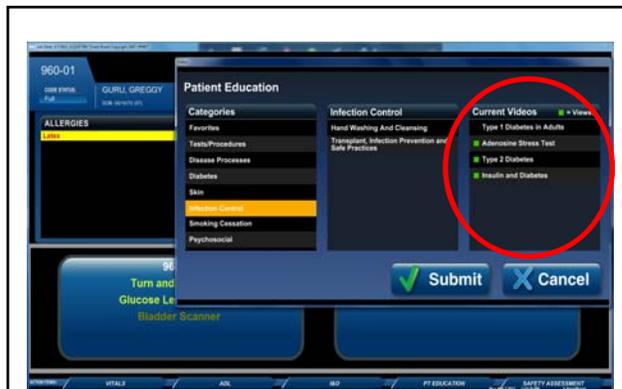
- High energy
- Early adopter of technology
- Confidence in ability to lead
- Respect and trust in others
- Ability to communicate clearly and listen effectively
- Good skills in planning and organizing
- Maintain control in different situations
- Perseverance to stick to the task at hand
- Patience and consideration of others
- Passion for technology gadgets

## Technology Change Agents' Tool

- Patient Education Videos (PEVs)



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Patient Education Videos

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## The Problem

- New technology introduced
  - PEVs have been available for one year
  - Minimal usage statistics

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## Study Idea

- QI project
  - 2 acute care nurses act as technology change agents
    - Cheerleaders for the technology
    - Measure PEVs usage
    - Survey nurses and patients for feedback

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## Technology Change Agents' Role

- Promote floor nurse use of technology
  - Introduce access to videos for patient
  - Show the patient how to access any of the 153 videos
  - Collaborate on the most appropriate health videos to view
- Act as source for questions and concerns

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### Technology Change Agents' Tasks



Speak often of the technology in regular conversation

Promote use of the PEVs to all other nurses

Encourage nurses and patients to use the videos as a part of their patient education plan

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## Methodology

- Baseline 4 months
  - PEVs usage statistics before Technology Change Agent
- Four months pre- implementation and four months with implementation
- Analysis performed during intervention to assess if there was a difference in viewing PEVs
- Informal face-to-face nurse and patient interactions were noted by one of the two technology change agents

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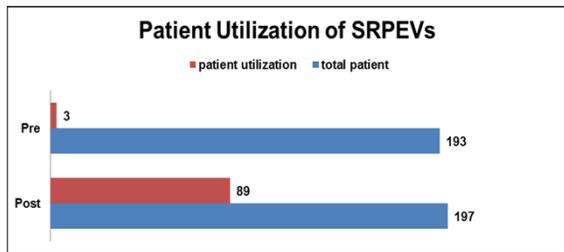
## Project Participants

- Nurses
  - N=22 completed training with the PEVS
  - Training documents were sent by e-mail
  - Material made available and stored as reference on the unit
  - Nurses documented use of the PEVs while educating patients after initial video training
- Patients
  - N=393 patients

	Four months Pre-project (n=193)	Four months Post-project (n=197)
Gender Female (%)	50.8% (n=98)	55.8% (n=110)
Age (mean, SD)	53.6 ± 13.5	51.2 ± 12.9

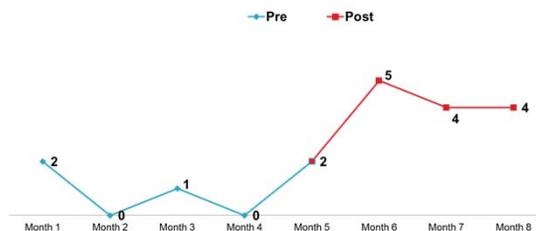
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### Results: Patient Utilization of PEVs



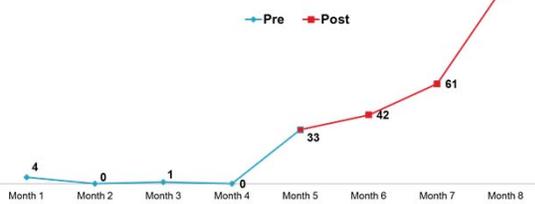
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### Results: Nurse (N=22) Participation Per Month

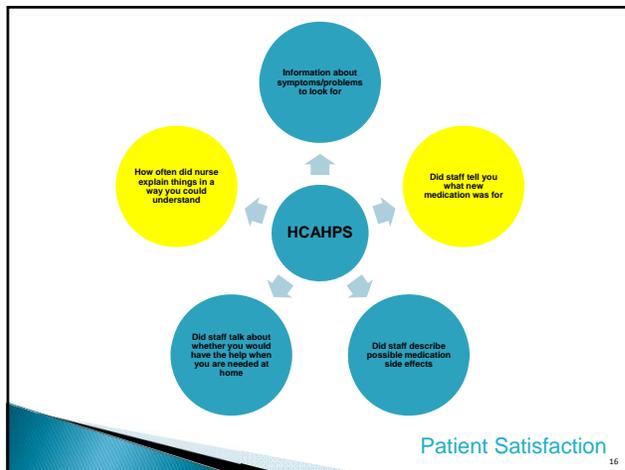


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### Results: SRPEVs Documentation to Viewed by the Patients in the EHR



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## Feedback

- Floor Nurses
  - Most agreed to keep using PEVs
  - Believed using PEVs in addition to traditional verbal or printed instruction improves patient education
  - Some did not want to change the traditional oral style of patient education
    - Face-to-face patient education worked for many years
    - Thought operating PEVs were too time consuming
    - Not accustomed to using PEVs during patient education

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## Feedback

- Change Agent - Technology Change Nurses
  - Learned that technology change agent can play an important role in modifying behavior
    - Requires many reminders to change habits
    - Importance of having someone who knows the nursing issues and workflow
  - Found that learning new technology is not easy for everyone
    - Customized to individuals
    - Hands on teaching needed
    - Taught some nurses multiple times because they cannot remember how to use it
  - Need to convince others that the new technology benefits them

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## Feedback

- Patients
  - Appreciation for access to the PEVs
  - Wanted to learn more about this technology
  - Entertained by the PEVs while in the hospital
  - Watched the relaxation videos to stay relaxed and de-stress while recovering from surgery
  - Learned what questions to ask doctors and nurses
  - Family members found videos an useful resource in learning how to care for their loved ones
  - Some complained that PEVs were hard to access because of the numerous steps

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## 1<sup>st</sup> Overall Finding

- Nurses who are technology change agents:
  - Cheerleaders for the technology, positive about change, and support others as they transition from the 'regular routine' to the 'new and improved' routine
  - Play a vital role in bringing improvement in using new technology in patient-centered education and care
  - Play the role of problem solver and subtly promote other nurses in behavior change and adopting new technologies

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## 2<sup>nd</sup> Overall Finding

- Use of nurses as technology change agents will germinate a patient-centered workforce thus meeting the goals of the American Recovery and Reinvestment Act and Meaningful Use

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## Lessons Learned

- The technology change agents could have improved their performance by:
  - Supercharging others to buy-in to 'the change'
  - Advocating the benefits of the PEVs to upper-management
  - Determining how much autonomy they have with the project and the level of support upper management provides for the change
  - Improving communication and becoming more of a leader in the project

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## What's Next...

- Informatics nurse specialist (INS) could improve technology change agents' performance by:
  - Encourage working with the nursing administrator
  - Collaborating with the information technology team
    - Should frequently communicate the plan to integrate SRPEVs into the unit
    - Modify the plan to ensure a healthy natural change
  - Promoting the building of a culture within the unit to motivate staff toward changing processes successfully
- In-depth training for technology change agents to teach them skills necessary for their role
- Publishing a manuscript about this work

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## Questions

1. What would need to be done to make 'Technology Change Agent' become a new formal career for RNs?
2. What is the connection between Informatics Nursing Specialist (INS) and technology change agents? How can they work together to successfully implement new technology?
3. We have described the nurse's new role as technology change agents. Can INS also act as technology change agents?

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**Thank you!**



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