2011.12.15 Selecting the right technology

Do assessment of technology
- changes in equipment
- services are being delivered in increasingly diverse ways

How much assessment to do.
Implementing technology can be risky
Structured tech assessment can reduce the risk

Look at table risk to program vs purchase quantity

Increase in assessment complexity, left to right
Failure with MRI/CT would be huge. Large cost, big risk to program if do wrong.
Digital camera not as extreme. If buying hundreds of cameras, the assessment complexity increases

Why do assessment – the 1-10-100 rule. Cost of finding a defect in development (before testing) is 10 times as costly as finding a defect in the planning stage. If find a defect in a QA process (after testing), it'll cost 100 times as much as it would have been in planning stage.
1000 rule. Cost of finding a defect after deployment will cost 1000 times as much as a planning defect. Think of recalls.

Cost of 1000. doing it again is 50%. Staff and training redue. Some lost confidence

Intangible costs. Providers lose faith in the technology. Tech seen as an obstacle to providing care

Don't make champion jobs harder, even they have limits. Keep in mind the non champion and what they would want.

Process overview
- establish requirements – know what you're looking for – clinical needs, workflow needs, who your users are. Could be loose requirements. $5,000, have this need, and to 5 sites. Or have specific requirements. Gather as many points of view as possible. Create shared meaning around the requirements. Think through a variety of requirement types. – portability, interoperability, etc.
- Review the market
    - Online resources
    - Phone a friend
    - Talk to organizations that have existing programs
    - Contact the manufacturers and vendors
- Procure the devices
    -
- Plan the tests
    - Take requirements and quantify them. Boil down and figure out what the device does. Ease of use, image quality, durability. Set up well understood scale
    - Develop methods to test against the requirements
    - Planning and testing can be iterative

- Test the plan
    - Test independently or together
        - Indepenedent tests can prevent ‘group think’
        - Collaboration can foster discussions
    - Document everything!
    - Be consistent
    - Update test if needed
- Select a device deploy and support it
    - Get reviewers together
    - Discuss the scores
    - Consider bringing back the initial requirements team
    - Be prepared for a second review of top info
    - Make a decision and share your results
- Deploy and support
    - Device staging
    - Configurations
    - Spares
    - Warranties
    - Customer support
    - Troubleshooting
    - Training
    - Replacing equipment – in 1 year, 5 years, etc.
    - Can find new requirements after testing devices

TTAC looking at mHealth this year

One size does not fit all, but sometimes one size can get pretty close.

Take advantage of others experience and knowledge
- OAT listserv
- Telehealth resource centers
- TTAC
- ATA
- Other organizations

TTAC focuses specifically on technology issues
Creates toolkits on technology assessment
Produces webinars on technology-related topics
Here to support the OAT grantees.
‘tech for doctors’ help people understand what things mean and what questions to ask.

Outline of toolkits
- how tech works
- market reviews
- sample imagines
- future comparison
- how to test the devices

will look at mHealth in 2012. have looked at home health. Technology assessment 101 thurs jan 19, 2pm. Telestroke – third Thursday of every month
www.telehealthTAC.org