

Increasing Efficiency While Maintaining Patient Outcomes and Satisfaction: One Clinic's Approach to a New Service Delivery Model

Presbyterian Board of Governors Cochlear Implant Center of Excellence @ GBMC

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Conflict of Interest

- Financial:
 - Senior Cochlear Implant Audiologist at Greater Baltimore Medical Center
 - Received honoraria for presentations from Cochlear and ASHA
- Nonfinancial:
 - Advisor to ASHA's Audiology 2019 conference



Who are we?

- Original the Presbyterian Eye, Ear and Throat Charity Hospital
- Community based hospital
- One of the largest birthing hospitals in the state
- Added cochlear implants in order to offer the full continuum of care
- Began 19 years ago and completed 7 implants the 1st year

Challenges Implant Centers Face:

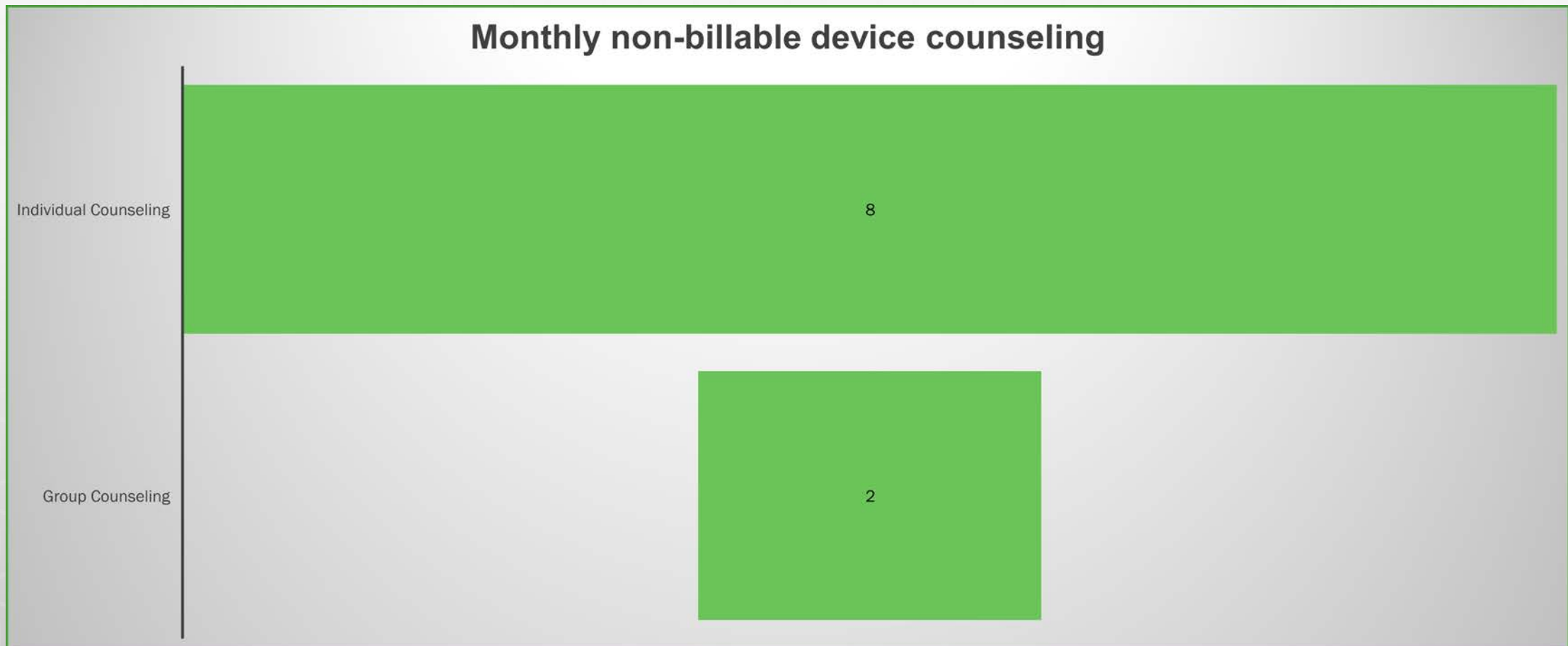
- Limited access to booth, real ear equipment, etc.
- Busy clinic schedules – can we see patients in a timely manner with minimal increase in staffing
- Time intensive process
- Poor reimbursement
- Additional technology/accessories require additional counseling
- Compatible hearing aid modifications
- Management of residual hearing and acoustic component

We need to find solutions to create a sustainable program.

Development of Device Counseling Workshop:

- Individual device counseling sessions increased as number of recipients increased – significant non-billable time spent completing
- Once a month group device counseling session
- Review insurance, surgery, vaccinations, timeline for management, realistic expectation, MRI compatibility and device options
- Patients sign contract
- Patients complete cochlear implant order
- Provided written documentation of all material covered

Reduction of non-billable counseling:



Media for Education:

- Increased resource links for candidates and current recipients on our webpage
- Links to manufacturer support
- Private Facebook group
- Device counseling and surgical consent videos to assist in streamlining the process for audiologists and surgeons
- Patient testimonials and CI Connection – link to an advocate





Surgical Volume Increases



Provider and Support Staff:

- Aural rehabilitation therapy – absorbed counseling responsibilities = increased revenue
- Administrative training – telephone troubleshooting, in office easy repairs or accessory for non-billable services
- Use of a CI technician:
 - Device review at activation
 - Equipment review and pairing before initial aural rehabilitation session
 - Troubleshooting – in office, via email or via telephone
 - Complete of RMA and LMN
 - Resource development
 - Preparation of all CI systems prior to activation
 - Lead the Device Counseling Workshop

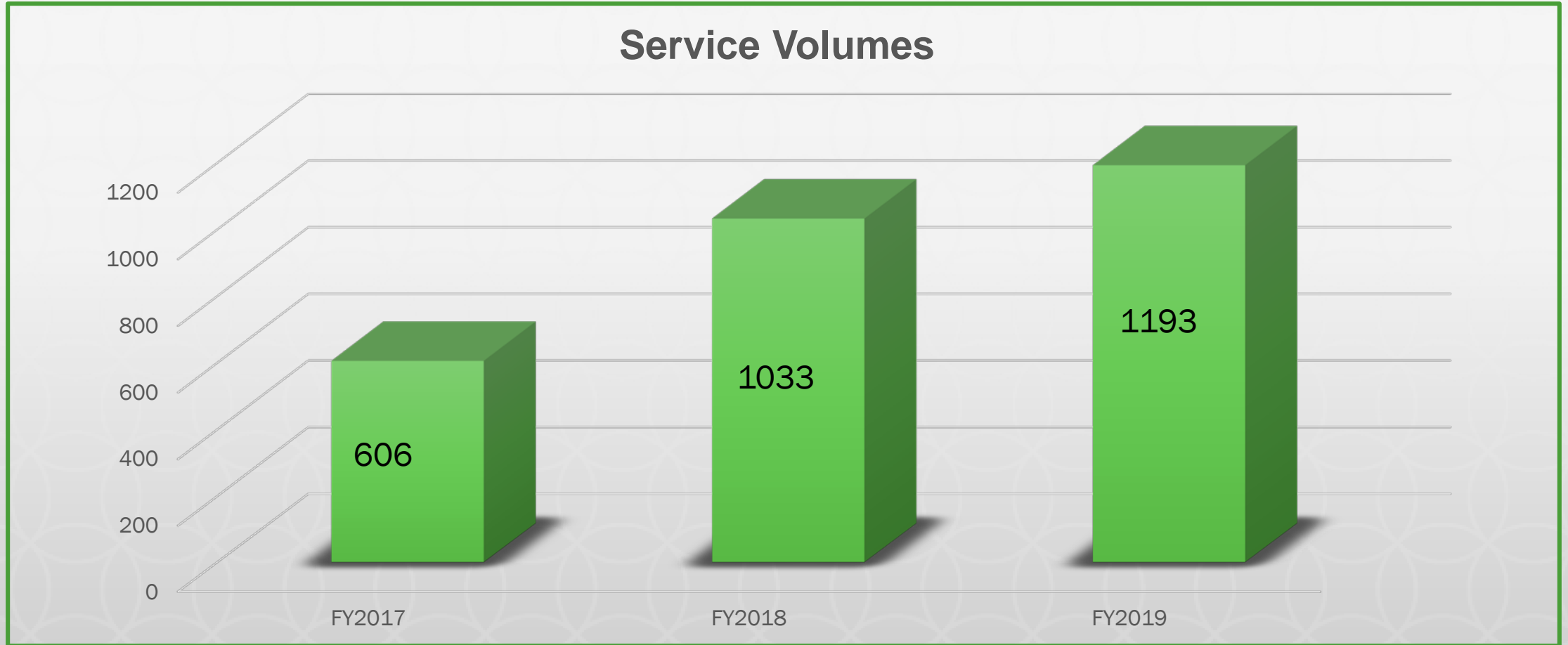
Cochlear Implant Technician:

- 100% of patients found services helpful
- 100% reported feeling adequately prepared to complete basic tasks following activation training
- 60% of folks felt 1 hour was conducive to learning
- 100% felt a 30 minute review was beneficial before the first AR session
- 30% of recipients requested additional support via email, phone call or office visit conducted by the CI Technician – reducing Audiologist involvement/time

Re-evaluation of Protocol:

- ✓ Defined necessary assessments at each step of the process
- ✓ Provided written and online support for patient empowerment
- ✓ Reviewed patient outcomes and appropriate assessments for each follow-up session
- ✓ Explored how much time was spent with audiology services and what could be completed by the rehabilitation therapist or CI technician
- ✓ Reduced protocol over time from 8 visits in the first year to 5 visits while reducing appointment times without impacting patient outcomes or satisfaction!

Clinical Service History:



Exciting Path Before Us:

- Patient Self-Assessment
 - a) Direct connected assessment completely driven by the recipient
 - b) Assess audiogram, loudness perception, speech perception, and phoneme discrimination
- Remote Service
 - a) Speech as well as audiology services
 - b) Self-assessments completed at home
 - c) Records sent and reviewed by expert clinician
 - d) Determine need for additional mapping
 - e) Mapping occurs remotely
- Use of Artificial Intelligence
 - a) A.I. used as a support tool in conjunction with results of evidence based assessment through direct connection



**“This
moment
made
possible by
you!”**

