June 2025
30 31 1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
The Health Foundation
Inspiring Improvement
Have cochlear implant; won't have to travel.
Helen Cullington
NCIUA 2015

June 2025						
SUN	MON	TUES	WED	THURS	FRI	SAT
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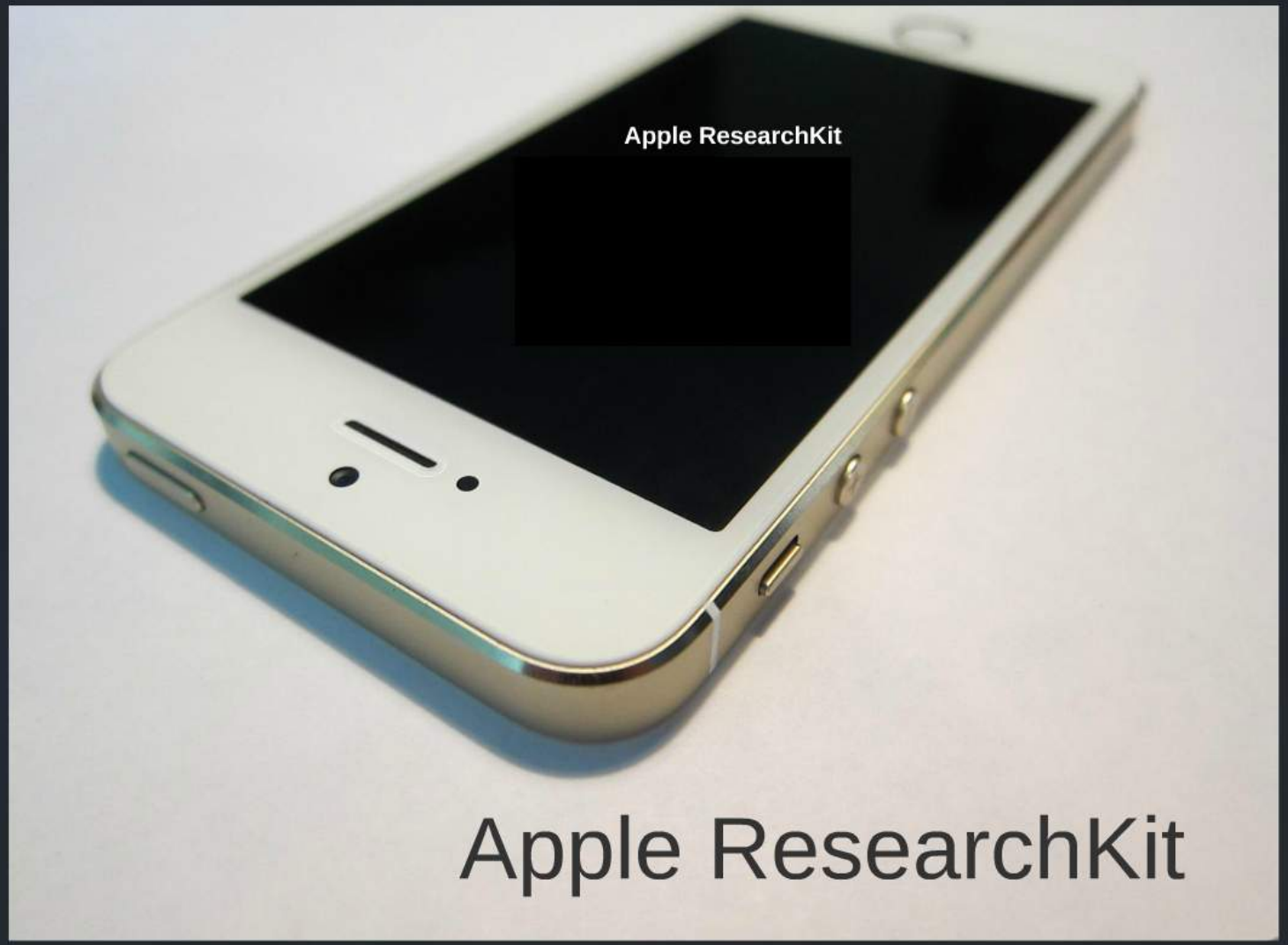
Helen Cullington

NCIUA 2015

10:09
Alarm
7:30AM
00:00
7:10
Apple ResearchKit


Apple ResearchKit
Apple ResearchKit

Apple ResearchKit

"**Mobile communication** has arguably had a **bigger impact on humankind** in a **shorter period** of time than **any other invention** in human history"

Minges, 2012 – World Bank Report

The number of mobile subscriptions will soon overtake the world's population

BILLION

2002
There are over 1 billion mobile subscriptions, passing fixed-line users.

1978
First commercial cellular mobile services established.

1961
85 years later, fixed-line subscriptions reach 100 million.

1876
Alexander Graham Bell holds the first two-way telephone conversation.

The number of mobile phone subscriptions will soon exceed the world's population!

9 8 7 6 5 4 3 2 1 0

375 1900 1925 1950 1975 2000 2011 2015

LOBAL POPULATION FIXED-LINE SUBSCRIPTIONS MOBILE SUBSCRIPTIONS

Thanks to William Webb for the slide

The number of mobile phone subscriptions will soon exceed the world's population!

June 2025

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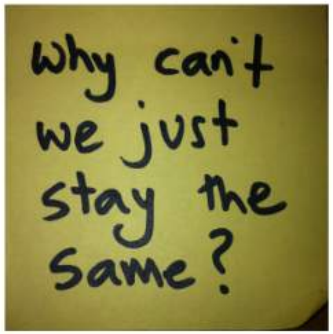
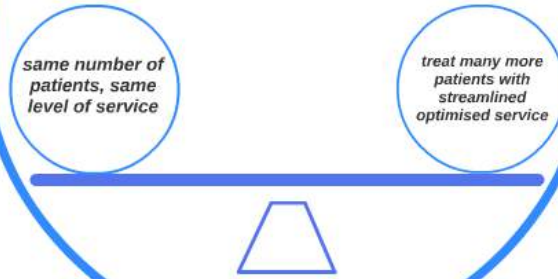
vastly increasing patient numbers

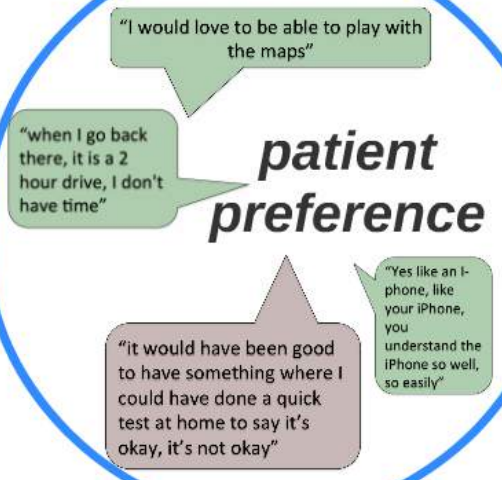
current care pathway is not patient-centred



funding

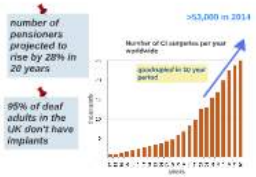


patient preference



vastly increasing patient numbers

1998 2012



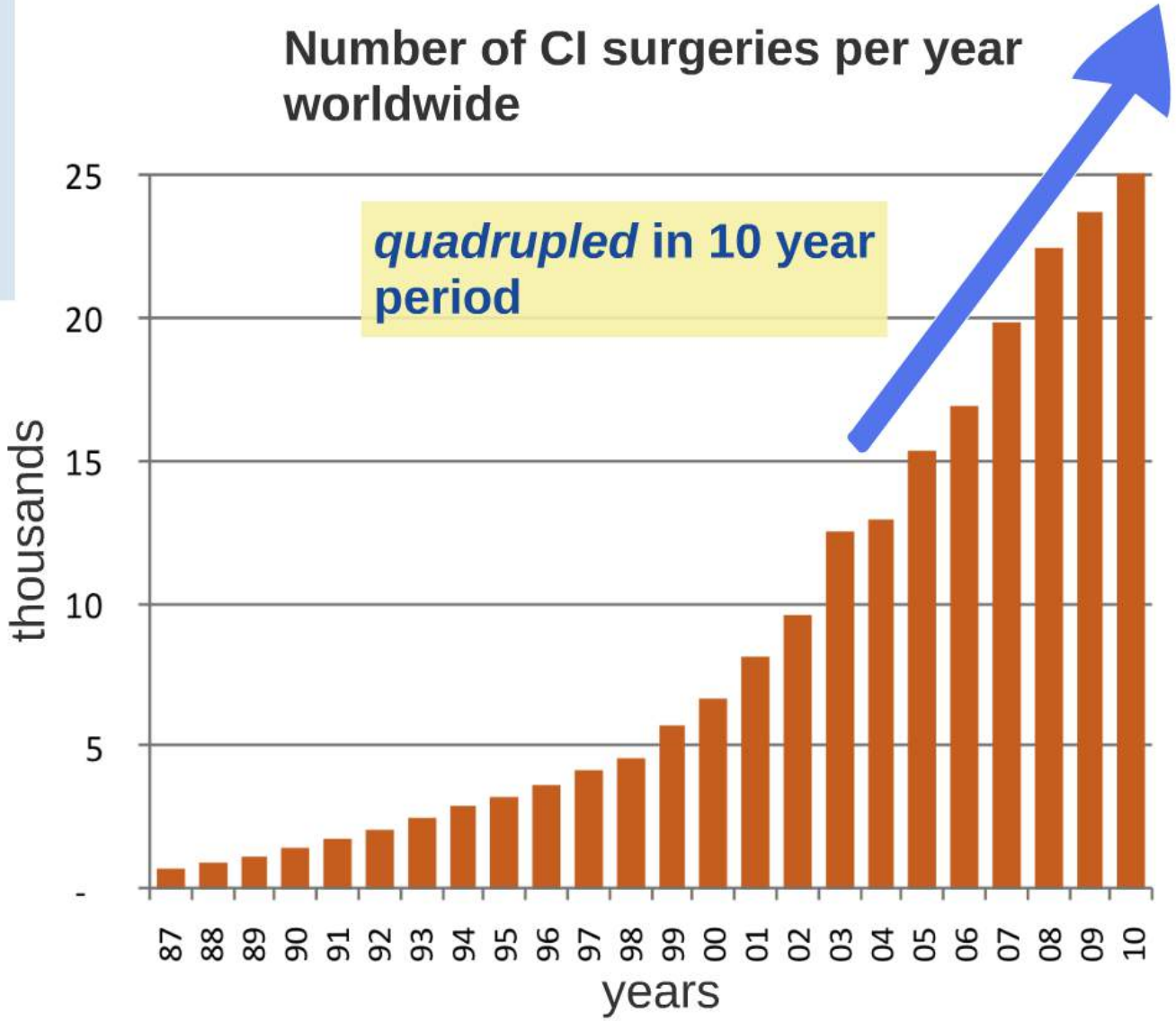
1998

2012

number of pensioners projected to rise by 28% in 20 years

95% of deaf adults in the UK don't have implants

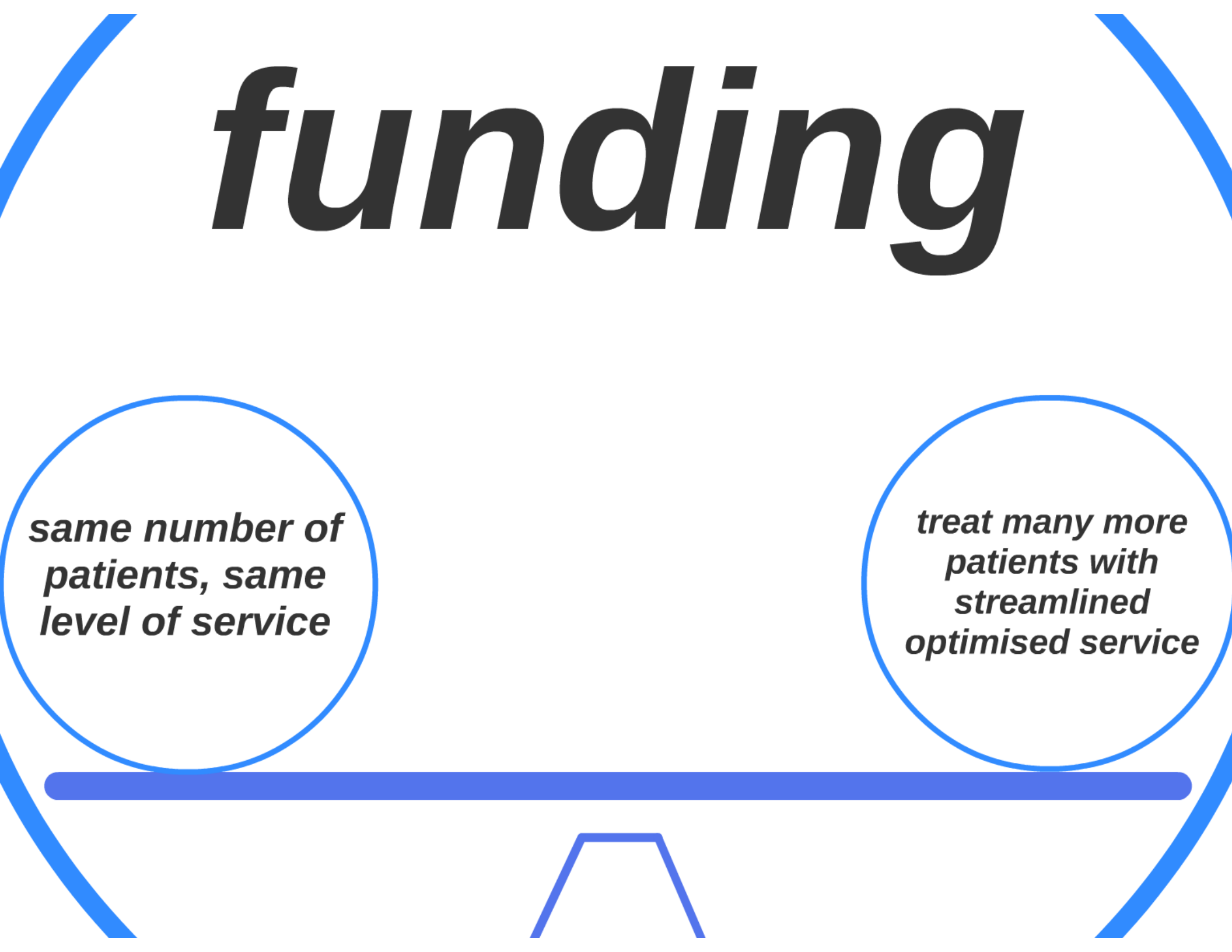
>53,000 in 2014



funding

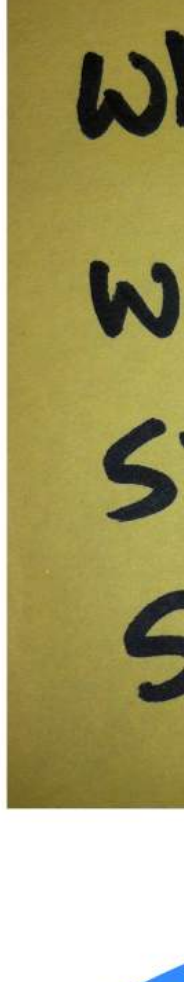
same number of patients, same level of service

treat many more patients with streamlined optimised service



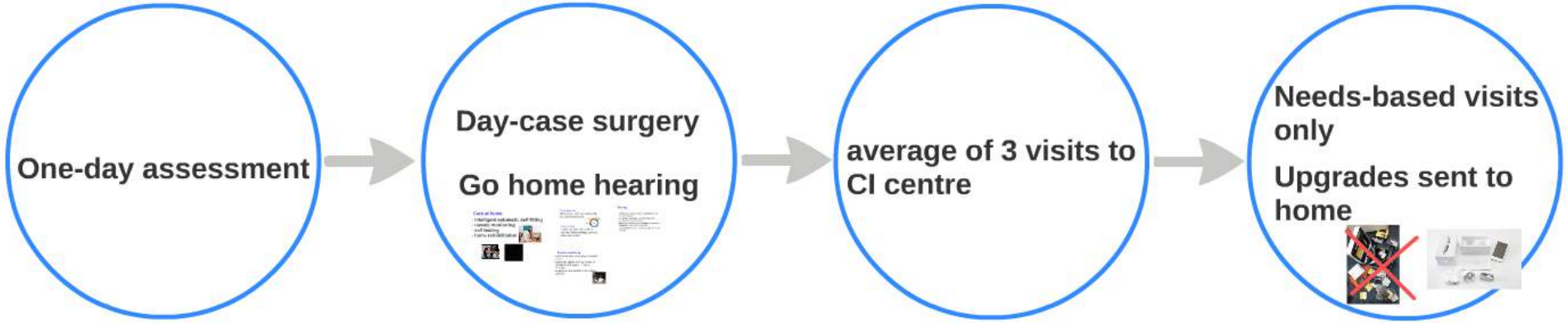
"I would love to be able to play with the maps"
"when I go back there, it is a 2 hour drive, I don't have time"
patient preference
"Yes like an I-phone, like your iPhone, you understand the iPhone so well, so easily"
"it would have been good to have something where I could have done a quick test at home to say it's okay, it's not okay"

current care pathway is not patient-centred



The CI centre in 2025

personalised patient-centred pathway:



Benefits to the patient

1.

2.

3.

Day-case surgery

Go home hearing

Care at home

- intelligent automatic self-fitting
- remote monitoring
- self testing
- home rehabilitation

Data logging

device use, settings, battery life, sound environments

Data mining

analysing large data sets to optimise initial settings, provide better outcomes

Remote monitoring

- continuous data streaming to implant centre
- automatic algorithms flag events or situations that need clinician's attention
- equipment and performance testing at home

Tuning

- continuous monitoring of impedances and neural response
- automatic electrode selection based on electrode-neural interface
- very gradual automated adaptive increase in stimulation over several weeks
- user feedback loop if possible (performance-based)

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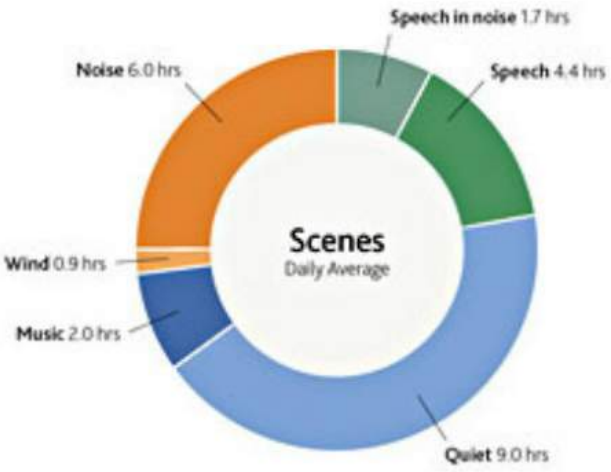

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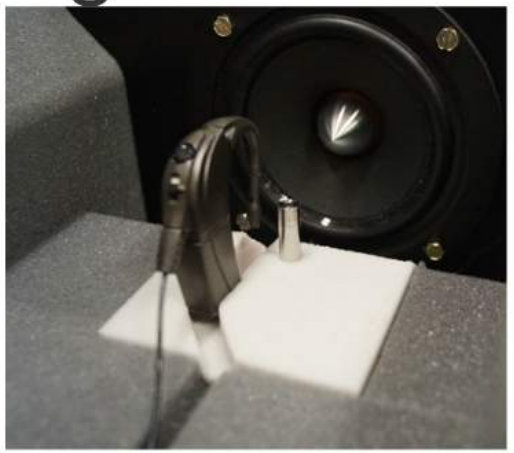

Needs-based visits only

Upgrades sent to home

Benefits to the patient

less travel time, expense, disruption (time off work, childcare etc) for routine appts: appts only scheduled when needed

increased confidence, empowered to manage own hearing health

- ability to check hearing at home and take action if worse
- ability to troubleshoot equipment at home and order correct spare part

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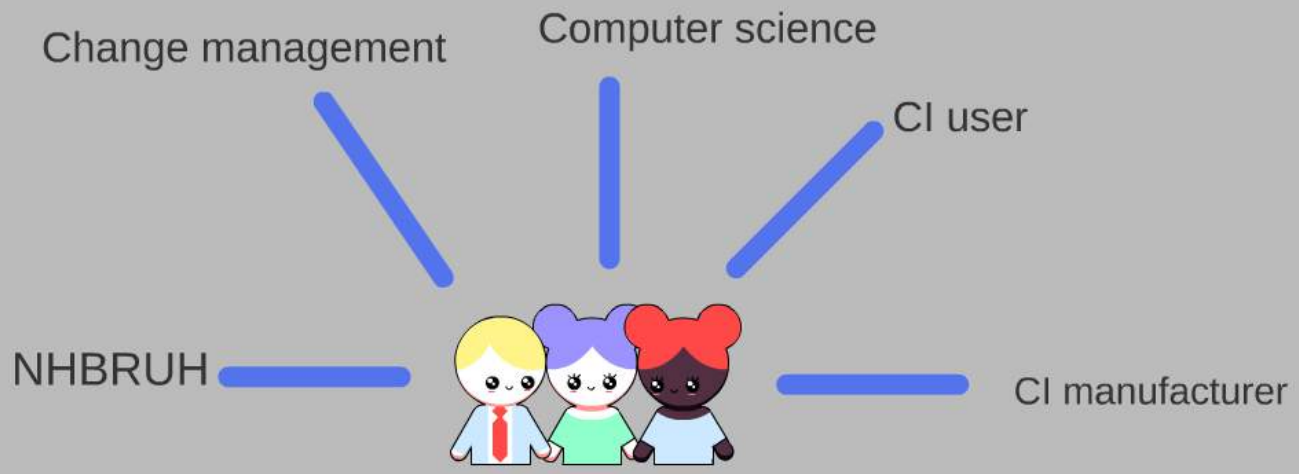
Our project

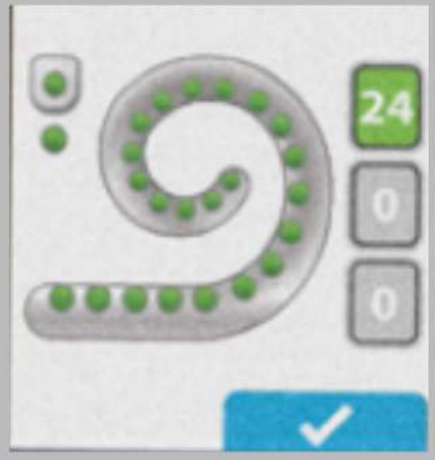


1. remote and self-monitoring
2. self-adjustment of device
3. online/smart phone intervention package

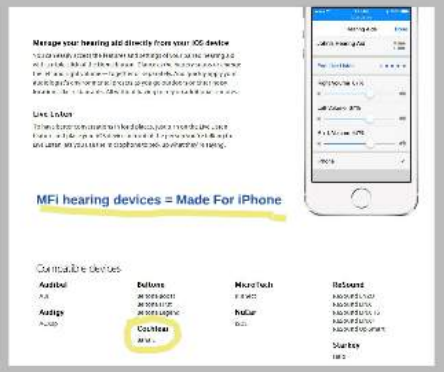
1. remote and self-monitoring

speech perception check and long-term follow-up questionnaire

impedance check



2. self-adjustment of device



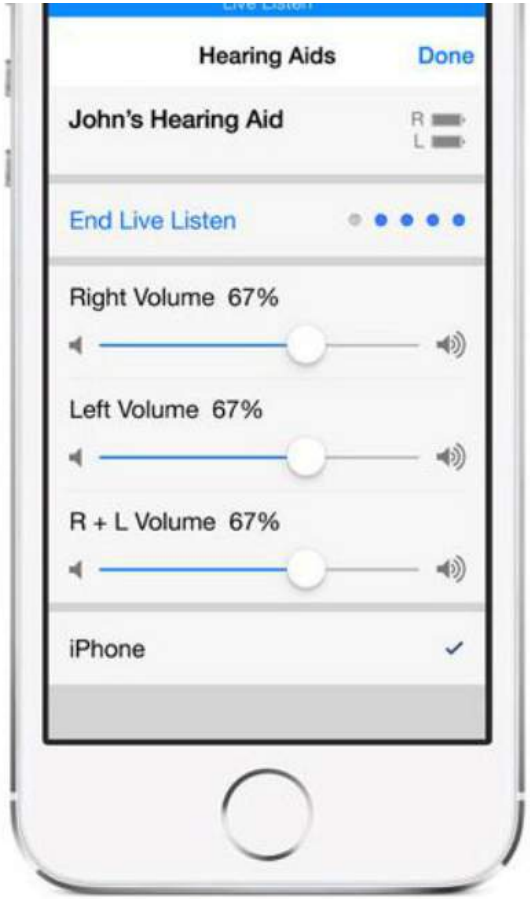
Er soll adjustment of devic

Manage your hearing aid directly from your iOS device

You can easily access the features and settings of your paired hearing aid with a triple click of the Home button. Glance at the battery status or change the left and right volume — together or separately. And quickly apply your audiologist's environmental presets as you go outdoors or enter noisy locations like restaurants. All without having to rely on additional remotes.

Live Listen

To have better conversations in loud places, just turn on the Live Listen feature and place your iOS device in front of the person you're talking to.* Live Listen lets you use the microphone to pick up what they're saying.



MFi hearing devices = Made For iPhone

Compatible devices

Audibel
A3i

Audigy
AGXsp

Beltone
Beltone Boost
Beltone First
Beltone Legend

Cochlear
Baha 5

MicroTech
Kinnect

NuEar
iSDS

ReSound
ReSound ENZO
ReSound LiNX
ReSound LiNX TS
ReSound LiNX²
ReSound Up Smart

Starkey
Halo

WiFi?

Advanced Bionics to Add Wi-Fi to Processors

Valencia, Calif., April 1, 2015— Advanced Bionics (AB), a global leader in cochlear implant technology and a company of the Sonova Group, announced today that upcoming external processors will include integrated 802.11 Wi-Fi network access. The primary intended use of the connection is for remote programming of external processors.

Advanced Bionics recipients with compatible processors may also access streaming audio services such as Pandora and Spotify. In addition, two-way communication using the processor's built-in microphones enable VoIP phone calls using services such as Google Chat or Vonage. Users with compatible Advanced Bionics processors will be able to make free phone calls to any location globally with no other equipment. While cochlear implants were originally intended to

Advanced Bionics and Starbucks announce a partnership where any cochlear implant patient who uses a Starbucks Internet connection for a programming session will receive a free Venti coffee. Starbucks is committed to improving the quality of life of its customers with affordable luxury, and facilitating cochlear implant programming sessions integrates well with its vision of a truly utopian society.

This is a joke! Repeat, this is only a joke! Do not interpret any of this post as being based in fact. Names have been changed to protect the innocent. Happy April Fool's Day 2015!

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3. online/smart phone intervention package

rehab

music

advice

goal-setting

reminders

trouble-shooting

training

Cochlear Implant Remote CAre

UNIVERSITY OF Southampton

Welcome to CIRCA!

We hope you will find everything you need here to help manage your cochlear implant.

First time logging in?

Please click the 'sign up' button below

Logged in before?

If you have already logged in to the site, please click the 'log in' button below.

If you are having problems logging in, please contact CIRCA@soton.ac.uk

If you are have forgotten your password, please click here

Cochlear Implant Remote CAre

UNIVERSITY OF Southampton

Main menu

Choose one of the options below:

Test your hearing

Solve a problem or get help

Do some rehab

Get info or training

Contact

Back

Next

If you are having problems logging in, please contact CIRCA@soton.ac.uk

Cochlear Implant Remote CAre

UNIVERSITY OF Southampton

Rehabilitation

We're really pleased you want to work on your hearing. It's just like anything else, the more you practise … the better you get!

What would you like to work on?

- Set or review your goals
- Use the telephone
- Music
- Listening in background noise

Back

Main menu

Next

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Cochlear Implant Remote CAre

UNIVERSITY OF Southampton

Your goals

You can choose and set some goals for your hearing

What would you like to work on? Choose 2 priorities for the next 3 months (** 1 month if still in first year).

- Wearing my speech processor more
- Recognising sounds
- Understanding speech better
- Listening in background noise
- Using accessories

(these are radio buttons, on or off, can only select 2, these now show on home page And record the date these goals were set so in 3 months there can be a reminder)**

Back | Main menu | Next

If you are having problems logging in, please contact CIRCA@soton.ac.uk

Cochlear Implant Remote CAre

University of Southampton

Solve a problem or get help

What sort of problem do you have?

- Medical
- Equipment
- Worried or depressed about your hearing
- Not hearing so well
- Problems with this website

Back | Main menu | Next

If you are having problems logging in, please contact CIRCA@soton.ac.uk

Outcomes we will measure

- patient empowerment
- clinician and patient preference
- speech perception
- use of clinic resources

Ask us how it went in July 2016!

H.Cullington@southampton.ac.uk

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