

THE CHALLENGE

Demand for eye health services is growing every year, but we lack any reliable population-level data to establish an up-to-date, accurate baseline for the UK's eye health.

This data is essential if the **NHS's Long Term Plan** is to be delivered for these key sectors for health and social care.

What follows here are mostly best estimates - educated guesses based on outdated studies of limited scope and scale, and international data.



2,000,000

It is estimated that around two million people in the UK are affected with partial sight, 218,000 of whom live with blindness

By 2024 it is projected that there will be **2.4 million** people living with sight loss. By 2034 this number is projected to increase to over **3 million**.

£3.5 - 7 billion
= revenue lost to UK due to lack of or reduced employment among those living with distance vision loss




Sight Loss Target

The Public Health Outcomes Framework (PHOF) includes a sight loss target - this study will allow us to better meet this PHOF objective.

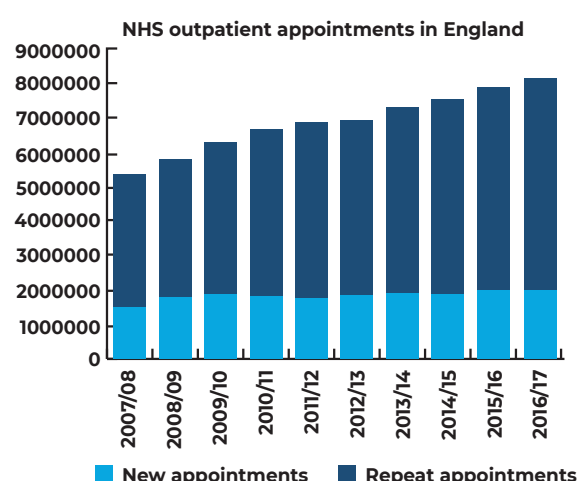
Better vision = greater independence.

There is **2.5 times** as much visual impairment among people living with dementia in residential care, compared to those living in their own homes.

Ophthalmology accounts for **8%** of the 94 million hospital outpatient attendances and is the busiest outpatient attendance specialty

WHO estimates that **80%** of vision impairment is preventable or curable



Total attendances
up
by 1 million over last 5 years
Further growth is projected as the population ages and new interventions become available for untreatable conditions like dry AMD.



£3.5 billion per year = direct cost to the NHS of eye health

But people in the UK are **STILL** losing their vision due to preventable or treatable causes.

75

people are registered with a visual impairment (VI) every day.

That's 3 every hour!
We don't know how many are living with VI, who aren't registered.

80% of glaucoma patients on the CVI register at Moorfields Eye Hospital had a significant visual impairment when they first saw the ophthalmologist.

60% of patients arriving were bilaterally blind. (2012 CVI data)



One in five people aged 75 and over are living with sight loss, and this figure rises to one in two people aged 90 or over. In 2010, **82%** of blind people and **65%** of people with moderate to severe blindness were older than 50 years of age


Evidence shows the poorer vision = increased risk of falls.

£23.4 million = COST of falls and fractures due to visual impairment

11,000,000

= the number of people in the UK living with hearing loss **THAT COULD BE ADDRESSED.** This number is growing.



Hearing loss  **Dementia**
£32,250 = cost per person per year of living with dementia. Those with severe hearing loss are at **five times** the risk of developing dementia as those with normal hearing, and **two and a half times** more likely to experience depression than those without hearing loss



£24.8 billion = estimated cost of hearing loss to the UK economy, due to impact of hearing loss on employment and productivity.

The UKNEHS will:

Provide reliable data on the causes of visual impairment and sight loss. This is critical to evaluating why our services are not stopping all preventable sight loss.

Give the devolved nations the data needed to understand eye and hearing health in their regions. It will enable unfair variation to be reduced.

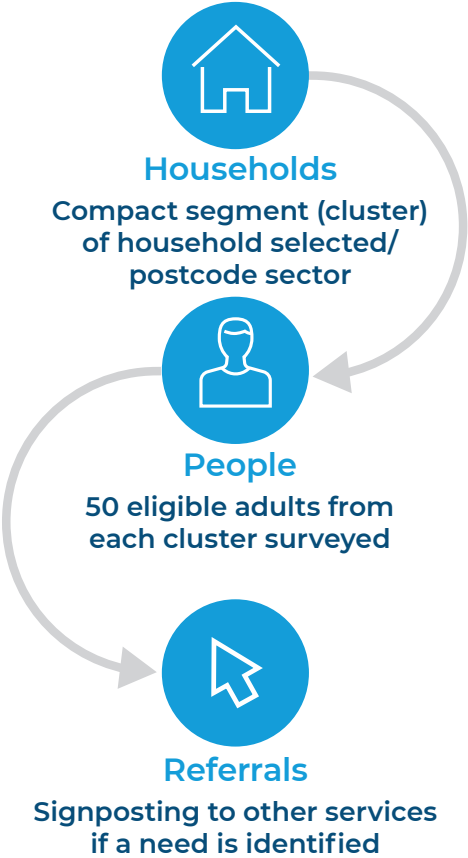
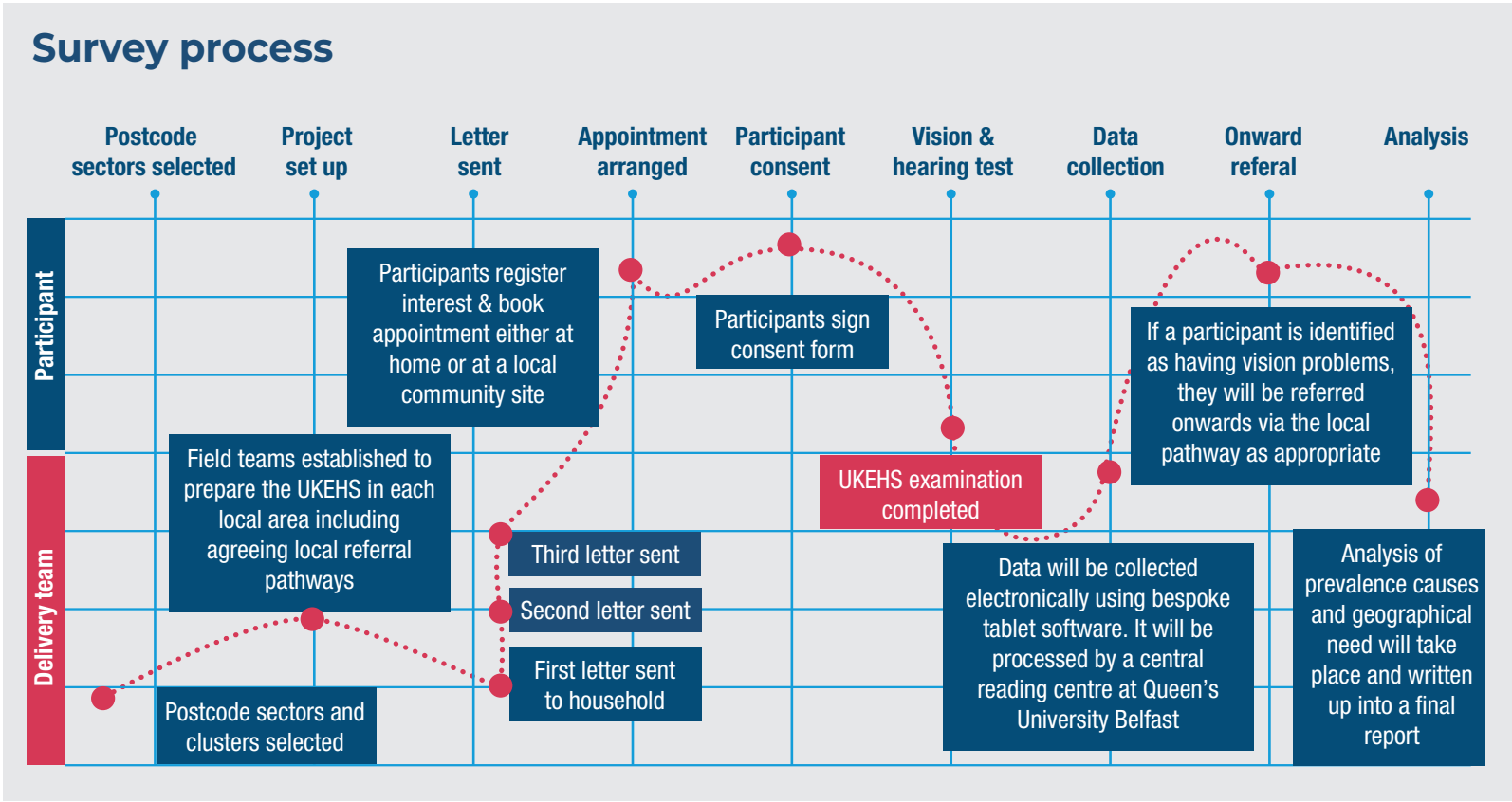
Enable existing models like NEHEM to become reliable sources of intelligence for the NHS, patients, and researchers, improving service design and efficiency.

Validate CVI and UK BioBank data sets, and add value to these important resources.

THE SOLUTION

£58 billion = combined annual cost of hearing and sight loss

If we can reduce the economic burden of hearing and sight loss to the UK economy by 0.1% will save enough in 1 year to pay for this research 3 times over. Every single year!



Eye and hearing tests

Measure the prevalence of:

- blindness, severe moderate and mild vision impairment and persbyopia
- diabetic retinopathy
- cataract and cataract surgery
- age related macular degeneration and its subtypes
- uncorrected refractive error
- glaucoma and its subtypes in the population
- hearing loss

Questionnaire themes

Personal information, demographics, employment, family history

Health and social care needs, for example:

- Long-term conditions
- Patterns of service use
- Family health history

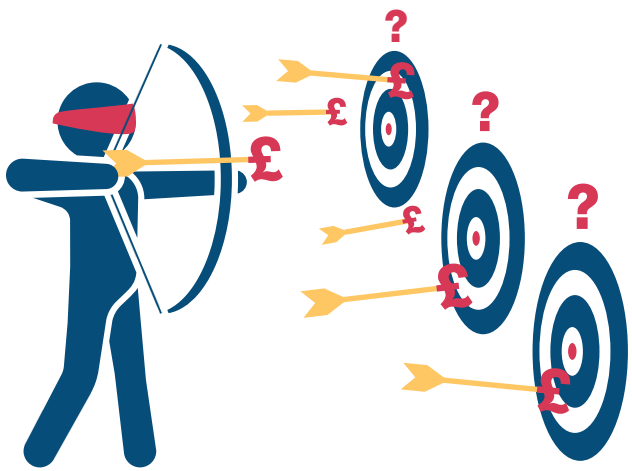
Participant experience (I.e. accessing services, health pathways etc), for example:

- Access of vision / hearing services
- Overall experience accessing health services
- Reasons for not accessing services
- Perceived barriers to access
- Awareness of services available

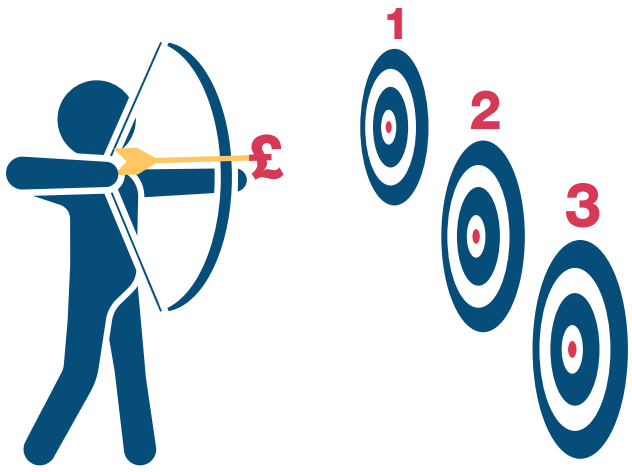
Follow up and future participation, for example:

- Willingness to participate in future studies or follow up surveys

Objective theme	Benefits of the investment
<div>Improved outcomes and effectiveness</div> <div>Improve delivery of public services</div>	<p>Direct project benefits:</p> <ul style="list-style-type: none">• The study will determine, for the first time a baseline of the prevalence and causes of vision impairment and blindness in the UK• The detection and treatment coverage rate of major eye diseases and conditions including cataract, diabetic retinopathy, glaucoma, age-related macular degeneration and refractive error• Access to 'hard to reach' groups for example, those residing in care homes, through the offer of household visits and community locations close to people's homes, which will contribute to awareness raising of eye health in local communities• All participants will be provided with feedback on their eye results on completion of the clinical examination to help give them a greater understanding and awareness of their eye health• Increased awareness of eye health and more people taking care of their own eye health• A direct impact on ~1,500 people who are expected to have an undiagnosed need through the study• Create an engaged participant data base for future eye health and hearing research <p>Each year lived with VI costs UK PLC c.£20,000. Each UK NEHS early detection costs just £10,500</p> <p>Wider programme benefits:</p> <ul style="list-style-type: none">• Improved public health• The UKNEHS data will be widely available, and used to support new research and update previous research, for example the RNIB Sight Loss Data Tool and the Imperial College NEHEM model• A national media campaign will build awareness in the wider population• Through using the accessible data, commissioning bodies will have a deeper understanding of the geography of eye health in their local areas and will be able to target resources based on actual need, and have a greater understanding of how the workforce, technology, and estate need to be provided
<div>Reduce costs</div>	<p>Direct project benefit:</p> <ul style="list-style-type: none">• Any participant with undiagnosed eye disease that can be detected through the study's testing protocol will be referred to an eye care professional working within the UKNEHS network, directly addressing identified conditions and reducing future costs associated with late diagnosis and irreversible loss of vision
<div>Comply with international standards</div>	<p>Direct project benefit:</p> <ul style="list-style-type: none">• Identifying unmet need will enable vision impairments to be corrected, sight loss prevented or treated earlier <p>Wider programme benefit:</p> <ul style="list-style-type: none">• UK NEHS data will enable the government / NHS to evaluate current services and develop new models that target need efficiently.



NHS Spend now



NHS Spend with UK NEHS Data