Our Future Health responses to CAG Subcommittee additional questions (April 2023)

- **Based on the current recruitment rate of 5.1% in March, sending 45 million invites would generate about 2.3 million participants. Given you have recruited 388,000, Digitrials is by far the most popular route and you have sent 10 million letters, it would need a response rate from the remaining 35 million letters of just over 13% to reach your 5 million goal.**

    - **Does OFH think that the recruitment rate can be significantly increased to near 13%, to come near the target of 5 million people?**

      Early data for April suggests the latest recruitment rates are already approaching 6% from a range of implemented measures.

      We have a number of further initiatives to continue to improve the participation rate in Our Future Health. The NHS DigiTrials invitation is a central component of this which follows priming of the population beforehand with engagement and awareness activities that include stakeholder engagement, advocate toolkit distribution, advertising, social media etc.

      Our specific participation rate improvement initiatives linked to the letters include:
      - **Letter optimisation:** This is made possible by the expertise we bring to our collaboration with NHS DigiTrials, which is improving both of our services.
      - **Conversion rate optimisation**: This involves ensuring the digital journey is as easy and smooth as possible with reductions in drop-out at each stage of the process.
      - **Customer relationship management:** Current data show over 80k participants who have consented and not booked an appointment. Much of this is due to participants outside of our invite areas (and clinic areas) joining the programme, but we have several initiatives being built to ensure we engage these participants when we move a clinic to their area.
      - **Referrals:** We are developing an online process for referrals (of family and friends of consented participants) to increase behaviour currently encouraged in the letter and at the appointment.
      - **Proposition development:** Transformation of the proposition (e.g. stronger emphasis on feedback/health) to drive recruitment and to also facilitate the longer-term engagement.
      - **Reimbursement:** Providing all participants attending an appointment a standard offer of reimbursement for travel/time to attend a clinic. Evidence indicates an improvement of up to 30% is possible.

      We expect with these improvements we will see participation rates increase to around 8-9% which we acknowledge is short of the overall ambition. We therefore have a number of additional strategies in order to mitigate against this:

      1. We will not rely exclusively on letter invites (NHS DigiTrials) but use other modes for awareness, engagement, and invitation to recruit volunteers into our non-probability, volunteer-based programmes. There are several reasons for this strategy including:
          a) targeting specific groups – for example serving members of the armed forces,

b) working with "affiliate partners" on raising awareness and invitation/participation in connection with their organisations. For example working with community groups, religious groups, sporting associations etc.
c) recruiting in the other 3 devolved nations – NHS DigiTrials currently only enables issue of invitations in England. We are in discussion with the health services of Wales, Scotland and Northern Ireland about the mechanisms for recruitment there.

2. We are planning to recruit from the pool of people who are Blood Donors during a routine blood donation session working in partnership with NHS Blood and Transplant.
3. We are in discussion with Dept Health & Social Care to pilot the recruitment of participants in parallel to the receiving an NHS Health Check.

- **What happens to the programme if you ultimately cannot reach 5 million?**

  - **Will you keep recruiting via other avenues that you describe until you do reach 5 million.**

    Our ambition is to recruit 5 million participants across the UK to be part of this research programme. How long we recruit for is dependent upon many factors, chiefly success, budget, and scope to enhance and expand the cohort further. Our ambition will not deviate from the 5 million target but it is, of course, possible that a lesser number may form the eventual cohort.

  - **Do you have a minimum number of people you need to recruit?**

    No. But while the ambition of 5 million will provide statistical precision for many different types of research studies, so too will a lesser number. Our Study Protocol describes statistical precision type, disease type and type of study (primary hypothesis test)—see below Table on incident disease accrual by cohort recruitment size as well as Study Protocol[1] Section 2.3 and Appendix A.

  - **Would the stated benefits of the Our Future Health Programme be realised if recruitment did not reach this level?**

    Some of the benefits would be realised with smaller sample sizes, but to truly make discoveries and help improve healthcare across the whole population requires both the sample size, diversity of participants, and follow-up. Please see the response to the prior question as well as the detailed statistical precision section of the Study Protocol referenced above.

    In addition to the research benefits, all of the individual benefits of participation will be provided for all who consent and attend an in-person appointment.

- **Thank you for describing some of the immediate benefits participants will receives such as tests. Can I ask however if the data from the first 388,000 participants is already being**

[1] https://s42615.pcdn.co/wp-content/uploads/Protocol-v4.0-with-appendices-CLEAN.pdf

used for research purposes and, if so have any important outcomes been identifier so far. Or, if not, when do you expect the first research outcomes to be realised?

We have just made 124k questionnaires available in the beta version of our TRE. By the end of the calendar year, we will release 100k genotypes and—pending NHS-England approvals—linked HES, cancer registration, and death registration data.

The Access Board will begin to review study proposals in Q3 2023. We expect initial research papers to be published from the resource in mid-late 2024. It should be noted that prospective cohort studies take time to mature and accrue incident disease. The desire for immediate health insights was noted as one of the highest risks of the programme when initially conceived by the UKRI. The many successful prospective cohort studies referenced in our Study Protocol demonstrate the value that programmes of this type provide. The scale and translational abilities of Our Future Health will ensure this programme provides the stated benefits for the health of the UK population.

Table. Estimated numbers of incident diagnoses in initial 2.5-year follow-up period of Our Future Health (excerpt shows first 50 of 261 diseases of Study Protocol Appendix A)

Condition	Category	1M	2M	3M	4M	5M
Primary Malignancy – Skin	Cancers	8,050	16,100	24,150	32,200	40,250
Primary Malignancy – Prostate	Cancers	3,620	7,240	10,860	14,480	18,100
Primary Malignancy – Breast	Cancers	3,370	6,740	10,110	13,480	16,850
Primary Malignancy – Lung	Cancers	2,790	5,580	8,370	11,160	13,950
Primary Malignancy – Bowel	Cancers	2,770	5,540	8,310	11,080	13,850
Primary Malignancy – Bladder	Cancers	1,360	2,720	4,080	5,440	6,800
Primary Malignancy – Melanoma	Cancers	1,190	2,380	3,570	4,760	5,950
Non Hodgkins Lymphoma	Cancers	920	1,840	2,760	3,680	4,600
Leukaemia	Cancers	710	1,420	2,130	2,840	3,550
Primary Malignancy – Kidney	Cancers	710	1,420	2,130	2,840	3,550
Primary Malignancy – Oesophageal	Cancers	670	1,340	2,010	2,680	3,350
Primary Malignancy – Pancreas	Cancers	610	1,220	1,830	2,440	3,050
Primary Malignancy – Uterus	Cancers	590	1,180	1,770	2,360	2,950
Primary Malignancy – Oropharyngeal	Cancers	540	1,080	1,620	2,160	2,700
Primary Malignancy – Stomach	Cancers	520	1,040	1,560	2,080	2,600
Primary Malignancy – Ovary	Cancers	500	1,000	1,500	2,000	2,500
Monoclonal Gammopathy of Unknown Significance	Cancers	440	880	1,320	1,760	2,200
Plasma Cell Malignancy	Cancers	430	860	1,290	1,720	2,150
Primary Malignancy – Brain	Cancers	390	780	1,170	1,560	1,950
Myelodysplastic Syndrome	Cancers	330	660	990	1,320	1,650
Primary Malignancy – Liver	Cancers	260	520	780	1,040	1,300
Polycythaemia vera	Cancers	220	440	660	880	1,100
Primary Malignancy – Biliary	Cancers	220	440	660	880	1,100
Primary Malignancy – Mesothelioma	Cancers	190	380	570	760	950
Primary Malignancy – Thyroid	Cancers	130	260	390	520	650
Primary Malignancy – Cervix	Cancers	65	130	195	260	325
Primary Malignancy – Testis	Cancers	60	120	180	240	300
Hypertension	Cardiovascular	49,730	99,460	149,190	198,920	248,650
Atrial Fibrillation	Cardiovascular	13,820	27,640	41,460	55,280	69,100
Stable Angina	Cardiovascular	8,600	17,200	25,800	34,400	43,000
Heart Failure	Cardiovascular	8,580	17,160	25,740	34,320	42,900
Myocardial Infarction	Cardiovascular	7,590	15,180	22,770	30,360	37,950
Transient Ischaemic Attack	Cardiovascular	4,360	8,720	13,080	17,440	21,800
Ischaemic Stroke	Cardiovascular	4,150	8,300	12,450	16,600	20,750
Peripheral Arterial Disease	Cardiovascular	3,920	7,840	11,760	15,680	19,600
Unstable Angina	Cardiovascular	3,750	7,500	11,250	15,000	18,750
Coronary Heart Disease	Cardiovascular	3,580	7,160	10,740	14,320	17,900
Venous thrombolism	Cardiovascular	3,190	6,380	9,570	12,760	15,950
Non-rheumatic Aortic valve disorder	Cardiovascular	3,080	6,160	9,240	12,320	15,400
Pulmonary Embolism	Cardiovascular	3,000	6,000	9,000	12,000	15,000
Multiple valve disorder	Cardiovascular	2,490	4,980	7,470	9,960	12,450
Stroke – not otherwise specified	Cardiovascular	2,420	4,840	7,260	9,680	12,100
Non-rheumatic Mitral valve disorder	Cardiovascular	2,400	4,800	7,200	9,600	12,000
Left Bundle Branch Block	Cardiovascular	2,050	4,100	6,150	8,200	10,250
Right Bundle Branch Block	Cardiovascular	1,980	3,960	5,940	7,920	9,900
Abdominal Aortic Aneurysm	Cardiovascular	1,830	3,660	5,490	7,320	9,150
Raynauds Disease	Cardiovascular	1,770	3,540	5,310	7,080	8,850
Supraventricular Tachycardia	Cardiovascular	1,490	2,980	4,470	5,960	7,450
Atrioventricular Block, first degree	Cardiovascular	1,230	2,460	3,690	4,920	6,150
Intracerebral Haemorrhage	Cardiovascular	930	1,860	2,790	3,720	4,650