

# Mindset XR Programme: 2022 – 2027

jane.guest@iuk.ukri.org Innovation Lead

Healthy Lives Aim
"Helping people to live well throughout the life course in mind and body."



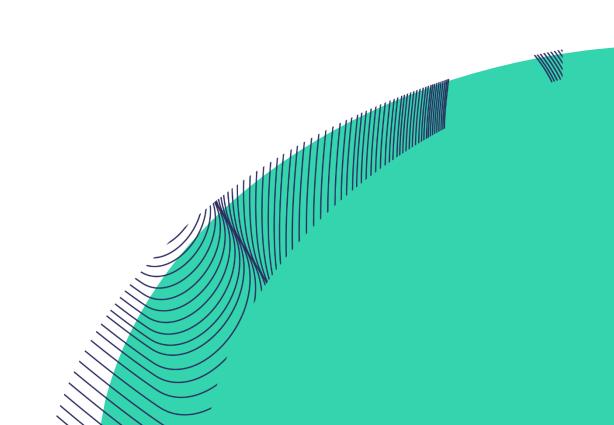
Image: Freepik

#### **Healthy Lives**



## Scene Setting

- Aim
- Approach





## Mindset: Tackling a key societal issue

Inspired by XRHA paper 'Growing value of XR in healthcare'

Key Findings from NHS England Survey, 23/24:

- 1 in 5 (20.2%) adults (over 11.5 million) in England had a Common Mental Health Condition (CMHC)
- Young people were more likely to have an CMHC than older adults with prevalence in 16 – 24 yr olds rising to 25.8%
- Prevalence of **severe MHCs** has also increased by 11.6%
- Prevalence of CMHCs is **higher in the most deprived areas** (26.2%) than in the least (16.0%)
- Yet only 44.6% adults are receiving treatment\*
- Increasing demand + not enough clinicians = <u>digital opportunity</u>

\* Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2023/4

#### UK-WIDE ISSUE

Nation	Prevalence (Adults, %)	Treatment Rate (% of those with condition)
England	20.2% (16–64, 2023/24)	43.5% receiving treatment (2023/24)
Northern Ireland	18–26% likely affected	40% of diagnosed cases received treatment
Scotland	11.3% (long-term condition, 2022)	Approx. 20% on antidepressants
Wales	~16.7% current; ~25% lifetime	No specific rate available

#### **KEY OUT-TAKE**

20 – 25% UK population have a MHC and not even half of them are being treated



Addressing with a holistic approach

**Overall Programme Budget £20m** 

**Delivered 3 Workstreams, 2022 – 2027:** 

1. Grant funding for **Collaborative R&D** projects, inspiring partnerships between academia and industry

2. **Investment Partnerships** to boost government funding and stimulate future investment

3. Partnering with Health Innovation Network, South London to deliver the **Mindset XR - Innovation Support Programme** (MISP), to optimise results by stimulating:

- Knowledge sharing (expertise)
- Networking and collaboration (partnerships)
- Adoption and scale (connections)
- Supports both projects and the wider ecosystem to deliver maximum economic and social impact

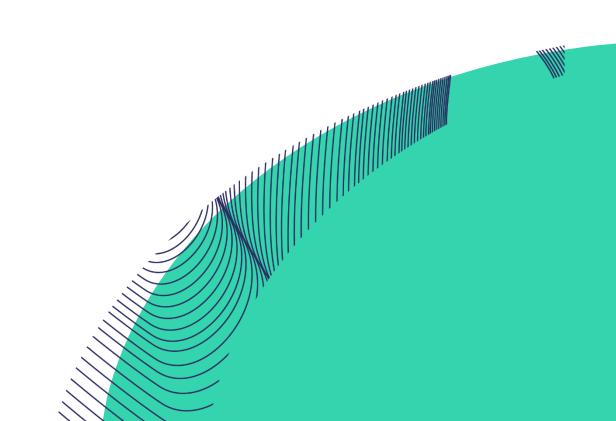


#### **Healthy Lives**



## **Delivering Impact**

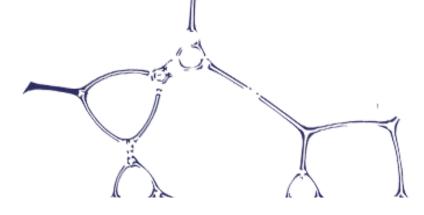
- Impact Timeframe
- Mindset
- Projects

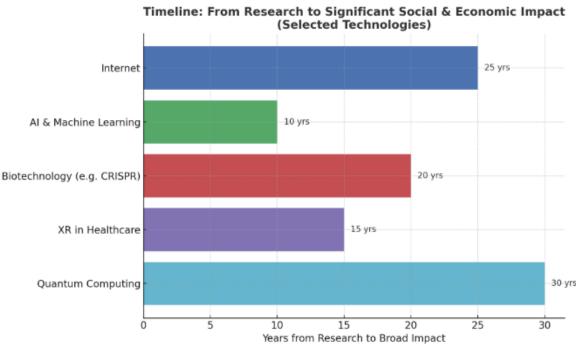




### **Timeframe: From research to impact**

- Many studies conducted
- 10 20 years for broad tech impact
- 1. Griliches (1957, 1992)
  - Showed that new technologies often take decades before reaching widespread economic impact.
- 2. Comin & Hobijn (2004, 2010)
  - Highlight that major technologies (electricity, telephone, computers) take 10–30 years from invention to broad adoption across economies.
- 3. OECD and World Bank reports
  - Emphasise that R&D and innovation investments typically take 10–20 years before showing clear economy-wide benefits.





**KEY OUT-TAKE** 

Takes 15 years for XR to deliver broad impact in healthcare, but 'we' are already seeing this!



## 3 Years in, Mindset impact so far...

- Funded & supported 70+ UK wide SME led projects, including final cohort of 17)
  - 30 Feasibility
  - 40 Industrial Research
  - 4 Investment Partnerships
  - 80% projects address low social economic groups
- Stimulated ecosystem, growing no. of applicants
  - £3m MR1 2022/23: **46**
  - £3.2m MR2 2023/24: **103**
  - £3.6m MR3 2024/25: **136 (196% inc.** over 3 years)
  - £1.8m Investment Partnerships: **150%** inc. across 3 comps
- Innovation progressed from treating wellbeing to SMIs
- Over 63 additional jobs created across 32 project reporting
- £2.1m private and further funding raised by 13 projects reporting
- High performance MISP achieving NPS 9 and so much more!



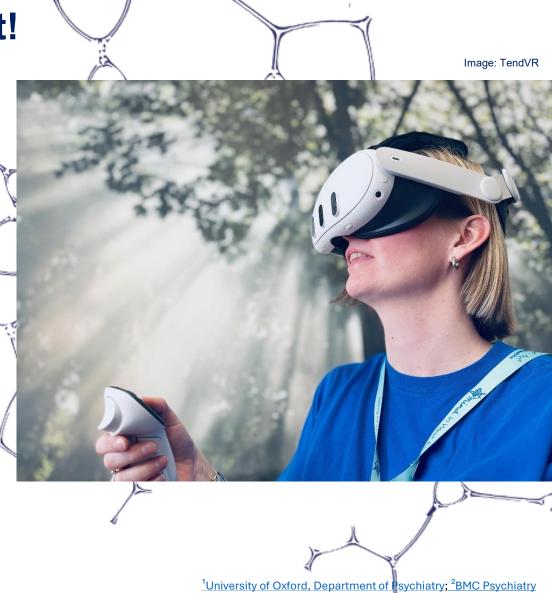


**Projects are Already Delivering Impact!** 

 TendVR: Researching, designing and delivering VR-based mindfulness based cognitive therapy (VR MBCT) to Mind service users across the UK

#### Key stats:

- First VR-MBCT course to be deployed in the NHS just three years after their first study
- **2-5 times cheaper** than Cognitive Behavioural Therapy
- On demand treatment with no waiting list
- **EFFECTIVE >50% average reduction** in PHQ-9 (depression) and GAD-7 (anxiety) vs. 43% (classic 'gold standard' CBT) <sup>1</sup>
- **ENGAGING >80%** treatment completion rates (vs. 68.2% classic CBT)<sup>2</sup>
- 59% reliable recovery from mental health conditions in latest delivery (NHS target = 48%) moving from clinical to non-clinical level of treatment
- MR3 award, focussing on Treatment Resistant Depression











- Their digital service supports sustainable mental & physical health habit changes for a wide range of lifestyle risk factors and long-term conditions like anxiety, after extensive co-design with the public & clinicians
- Deployments have taken place with 200+ GP practices across over 18 UK regions
- Holly Health has delivered personalised digital health
   & habit coaching to 70,000 UK patients



#### **Observed outcomes in primary care:**

30% reduction in GP Appointments (in high service users)

28% improvement in ONS-4 Wellbeing (in people with low to medium wellbeing)

31% increase in Exercise Hours (in people with low to medium exercise)

3.55mmHg Average BP reduction (in people tracking BP) >15x ROI
Estimated ROI
in ICS scale
deployments



## And last but most definitely not least...

XR Therapeutics: New VR platform for accessible treatment of phobias and anxiety, self-harm & PTSD

- 7 NHS trusts (took one and a half years to win first contract)
  - 2 charities
  - Multiple private insurance providers
  - Various services including adult and children mental health teams working in:
    - Prison and probation services
    - Education and CYP services
    - Neurodiversity and learning disabilities
    - Procedural and hospital settings
- The first XR company to be commissioned by an ICB and be included on the NHS Innovation Accelerator
- Health economics report shows savings of up to £21,000 per
   100 patients treated, plus 7 QLYs (quality-adjusted life years)
- Featured in the NHS Long Term Plan for their work with Greater Manchester Mental Health Foundation Trust

"It was fantastic, extremely useful for the patient, they progressed so quickly in 2 sessions. I have a patient scared of heights, he went into the session with all those typical physical symptoms associated with anxiety and what we did in 2 sessions here with XRT would probably have taken around 12 without."

- Laura, NHS Therapist

"XRT has changed my perception of how I view all my fears and anxieties and not just the specific phobia I have. I was blown away by the process of the treatment and how quickly it worked for me."

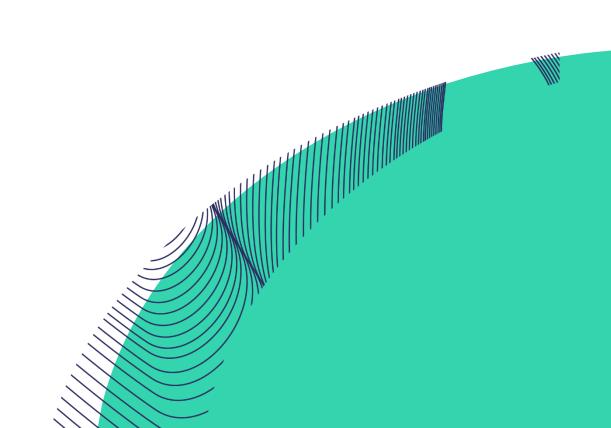
Patient, XR Therapeutics

#### **Healthy Lives**



## **Future Funding**

- Context
- Shape
- Optimising Impact





## How things are shaping up

Top-level UK strategy supports more investment in DTX for MH:

#### Government

Economic growth central to Industrial Strategy, with Digital &

Tech and Life Sciences being two of the 8 key UK growth sectors

Health mission focus is on CYP mental health

#### **NHS 10 Year Plan**

- Analogue to Digital
- Hospital to Community
- Sickness to Prevention

#### Life Sciences Plan

- Enabling World Class R&D
- Driving Health Innovation and NHS Reform
- Making the UK an Outstanding Place in Which to Start, Grow, Scale, and Invest





## Catalysing innovation in mental health

Current thinking developed in Aug 24, will need to be reviewed and aligned where necessary to new strategy and SR priorities

- New 4yr programme with comps launching in 2027
- Focus will be on DTx for mental health across the life course utilising creative tech + Al (if applicable & appropriate)
- Thematic areas: **Prevention**, Diagnosis, **Treatment**
- CR&D multi-strand comps:
  - Feasibility (TR 1 3)
  - Industrial research (TR 4 − 6)
  - Experimental design (up to TR 7, 8)
- Investment Partnerships comps, feasibility, industrial research, experimental design
- Contracts for Innovation (SBRI), industrial research (closer to market/impact)



Image: MindTrack 360 (Formerly, Life Process Program)

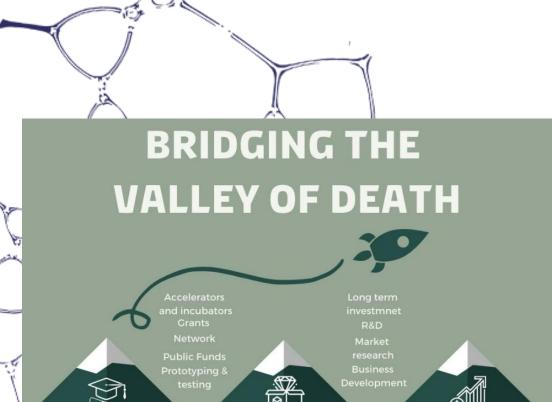


## Optimising economic & social impact

A community approach, drawing on ecosystem expertise

- Looking at a UKRI cross-council partnership to run a comp focussed on behavioural and culture barriers to determine what's needed for behavioural change - to increase market adoption and stickiness
- Providing a support programme to help optimise project delivery and opportunities to drive adoption and scale (e.g., MISP)
- Partnering with an accelerator to help projects with the most potential to bridge the second valley of death

AMBITIOUS CO-DESIGNED PLAN, DEPENDENT ON STRATEGIC AND SPENDING REVIEW PRIORITIES + BUDGET ALLOCATIONS... still an opportunity to shape – let's talk!



DEMONSTRATION

RESEARCH

