DEVELOPMENT OF A VIDEO-BASED EVIDENCE SYNTHESIS KNOWLEDGE TRANSLATION RESOURCE:

DRAWING ON A USER-CENTRED DESIGN APPROACH

A warm welcome to everyone !

Presented by

Dr Elaine Toomey

Dr Toomey is a Lecturer in Evidence-Based Healthcare and Health Research Board 'Applying Research into Policy and Practice' Fellow at University of Galway

NATIONAL CENTRE OF IMPLEMENTATION SCIENCE

THE UNIVERSITY OF NEWCASTLE AUSTRALIA

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Please note: This webinar will be recorded

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Overview

- A little bit about me and my current research
- Development of a video-based evidence synthesis KT resource
- Final reflections…

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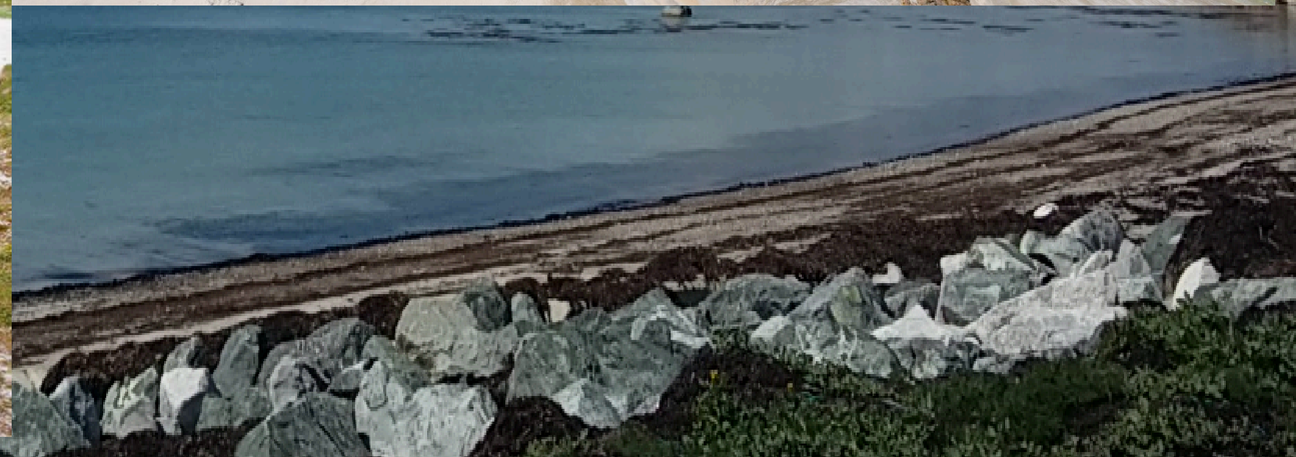
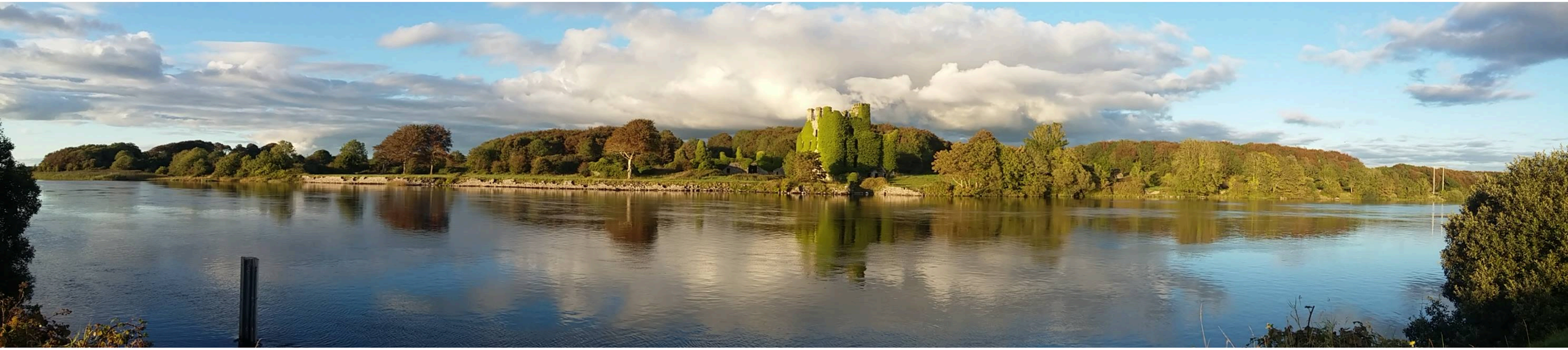
Who am I?

- Lecturer, Programme Co-Director of MSc in Evidence-Based Future Healthcare, University of Galway
- Health Research Board Applying Research into Policy and Practice Fellow
- Cochrane Ireland Research Associate
- Previously Associate Director of Cochrane Ireland

Legend
Capital
Major cities
Belfast
Dublin City
Galway City
Limerick City
Waterford City
Cork City





Pottery

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Overarching career goal

To improve population health and wellbeing by enhancing the implementation of research into policy and practice using insights from behavioural and implementation science

Research, Teaching and Academic Service activities:

1. Making health research more usable, relevant and better quality – **Health Research Methodology**

2. Implementing evidence-based behavioural health interventions into policy and practice – **Behavioural and Implementation Science**

3. Developing a more effective and efficient evidence ecosystem – **Knowledge Translation for Policy, Practice and the Public**

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Current research…

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'Using Knowledge Translation to Enhance the Use of Evidence in Public Health Decision-making by Policymakers and Healthcare Managers in Ireland'

Prof Luke Wolfenden,
Uni of Newcastle, HNE

INTREPiD

INTegrating REsearch into Public health Decisionmaking

INTREPiD-KT
@INTREPiD_KT

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CESR

EXPLORING CONSULTATION EXERCISES IN SCOPING REVIEWS

EVIDENCE SYNTHESIS IRELAND

Cochrane Ireland

STUDY WITHIN A REVIEW (SWAR)
ESI SWAR AWARD SCHEME 2023

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Dr Heather Colquhoun,
University of Toronto

Dr Andrea Tricco, JBI/Dalla Lana School of Public Health

Maureen Smith,
Cochrane Consumers

Dr Catherine Houghton
Cochrane Qualitative Methods

Dr Danielle Pollock
JBI/Uni of Adelaide

Niamh O'Connell, 2nd Year Midwifery Student

Armaghan Dabbagh,
UofT postdoc

Ciara O'Meara
PhD student/Lecturer
Uni of Galway

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Dr Heather Colquhoun,
University of Toronto

Prof Molly Byrne,
University of Galway

Dr Fabiana Lorencatto,
University College London

Dr Nicole Nathan,
Uni of Newcastle, HNE

Rebekah Roy, 2nd Year Med.
TMRN Summer Student

Dr Karen Matvienko-Sikar,
University College Cork

Dr Nicola McCleary,
OHRI

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Dr Daphne To,
University of Toronto

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Developing a video animation KT resource to explain evidence synthesis

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Evidence Synthesis Ireland & Cochrane Ireland

'*Evidence Synthesis Ireland (ESI), which hosts Cochrane Ireland, aims to make evidence syntheses more usable in every sense of the word – better designed, conducted and reported, more useable for decision-makers and more useable within health care policy and clinical practice decision making across the island of Ireland and beyond*'

My role (Associate Director, 2019-2020):

- Co-responsibility for the scientific direction of Cochrane Ireland
- Foster national awareness around evidence synthesis through targeted outreach and strategic communication
- Public focus++

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The team!

Prof Declan Devane,
Cochrane Ireland/ESI Director

Cris Deliv, 2nd year Med.
ESI Summer Student 2019

Dr Patricia Healy,
ESI Programme Manager

Dr Sarah Rosenbaum,
IHC/Norwegian Institute of
Public Health

Dr El Putnam,
Arts and Media, UoG

Dr Amanda Hall,
Memorial Uni, Newfoundland

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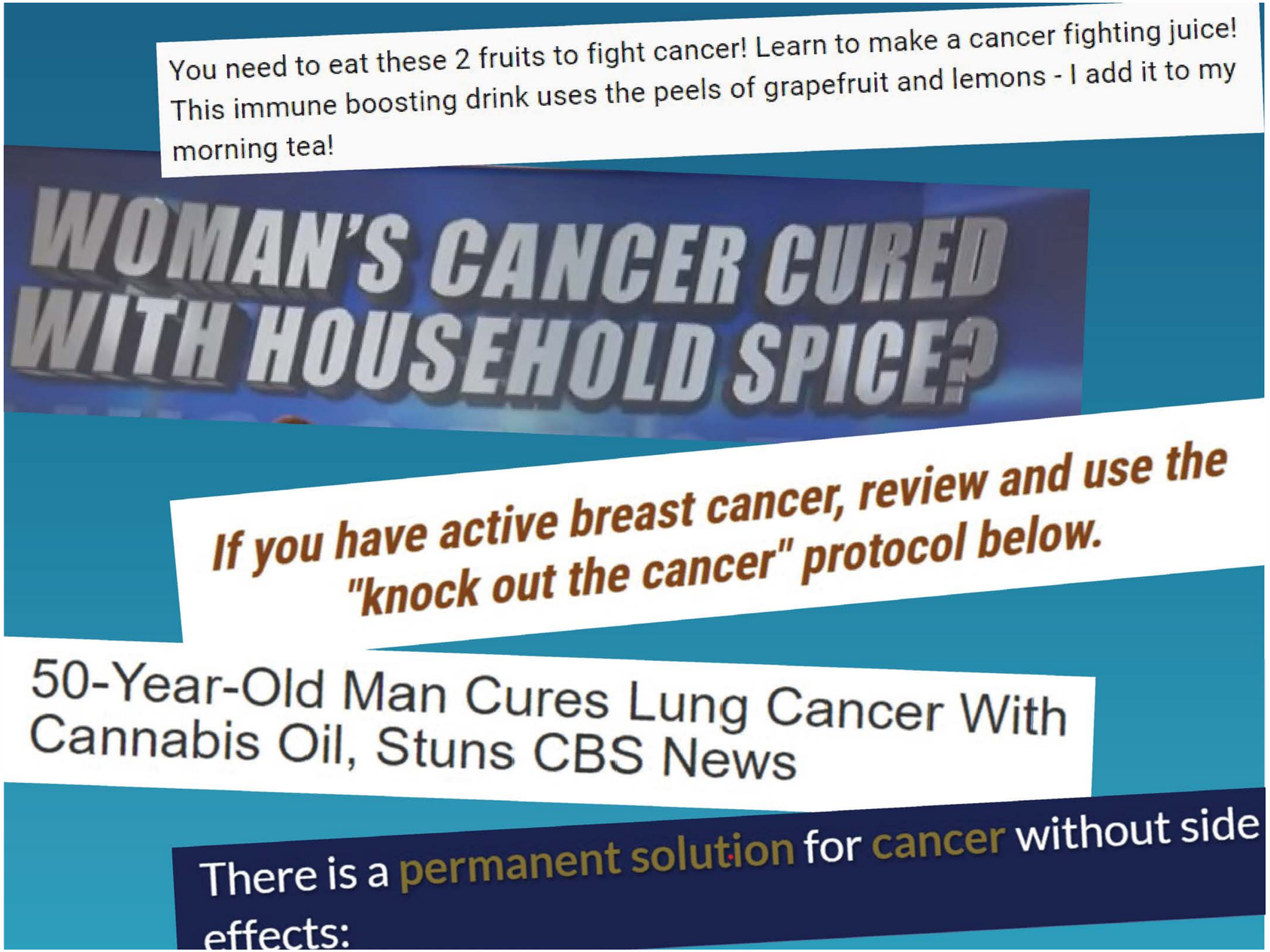
The context…

- Increasing accessibility of health information, growing mis- and disinformation…
- Trustworthy knowledge translation (KT) resources needed
- Understanding evidence synthesis is vital for people to make informed decisions



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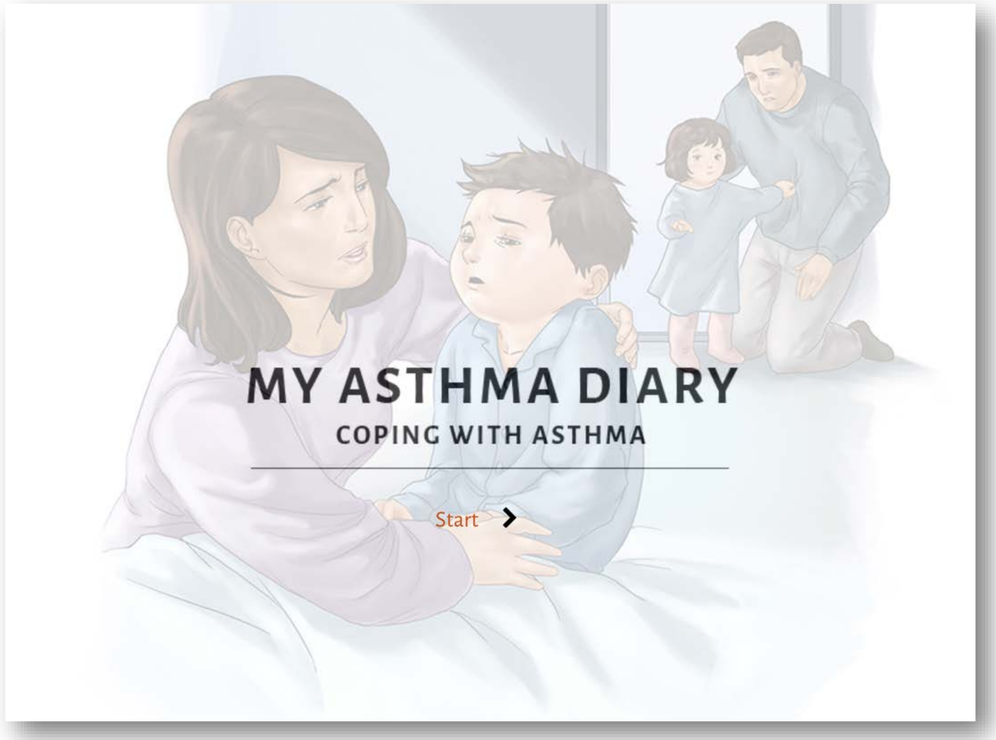
- Development of many KT resources not evidence-based or unclear
- Many KT resources not developed in collaboration with end-users
- Few examples of KT resources explaining methodological topics



Informed Health Choices

RESEARCH Open Access

Development of mass media resources to improve the ability of parents of primary school children in Uganda to assess the trustworthiness of claims about the effects of treatments: a human-centred design approach

Daniel Semakula[1,2], Allen Nsangi[1,2], Matt Oxman[3], Sarah Ellen Rosenbaum[3], Andrew David Oxman[2,3*], Astrid Austvoll-Dahlgren[3], Claire Glenton[3], Simon Lewin[3,4], Margaret Kaseje[5], Angela Morelli[6], Atle Fretheim[2,3] and Nelson Kaulukusi Sewankambo[1]

Archibald et al. BMC Pediatrics (2018) 18:186
https://doi.org/10.1186/s12887-018-1155-2

BMC Pediatrics

RESEARCH ARTICLE Open Access

Developing "My Asthma Diary": a process exemplar of a patient-driven arts-based knowledge translation tool

Mandy M. Archibald[1*], Lisa Hartling[2], Samina Ali[2], Vera Caine[3] and Shannon D. Scott[3]

International Journal of Qualitative Methods
Volume 20, January-December 2021
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https://doi.org/10.1177/16094069211019623

SAGE journals

Regular Article

Co-Designing Evidence-Based Videos in Health Care: A Case Exemplar of Developing Creative Knowledge Translation "Evidence-Experience" Resources

Mandy Archibald[1,2,3,4], Rachel Ambagtsheer[2,5], Michael T. Lawless[2,3,4], Mark O. Thompson[6], Timothy Shultz[2,6], Mellick J. Chehade[2,6], Lyn Whiteway[7], Anna Sheppard[7], Maria Pinero-de Plaza[2,3,4], and Alison L. Kitson[2,3,4]

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Our aim:

To develop a video-based knowledge translation resource to explain evidence synthesis to a public audience,
in collaboration with members of the public

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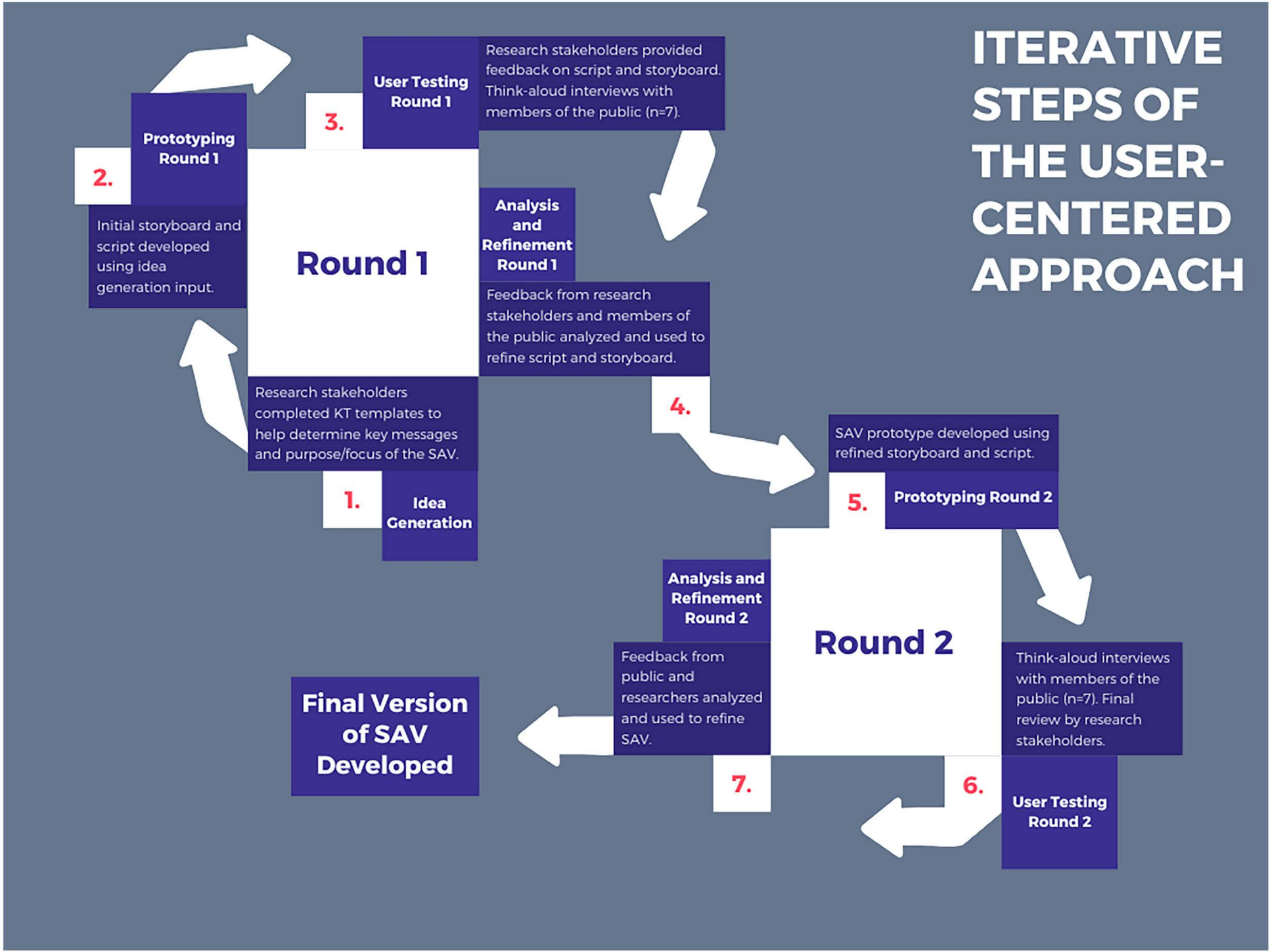
- User-centred design approach (informed by Semakula et al)
- Iterative cycles of 1) Idea generation 2) prototyping 3) user-testing 4) analysis and refinement



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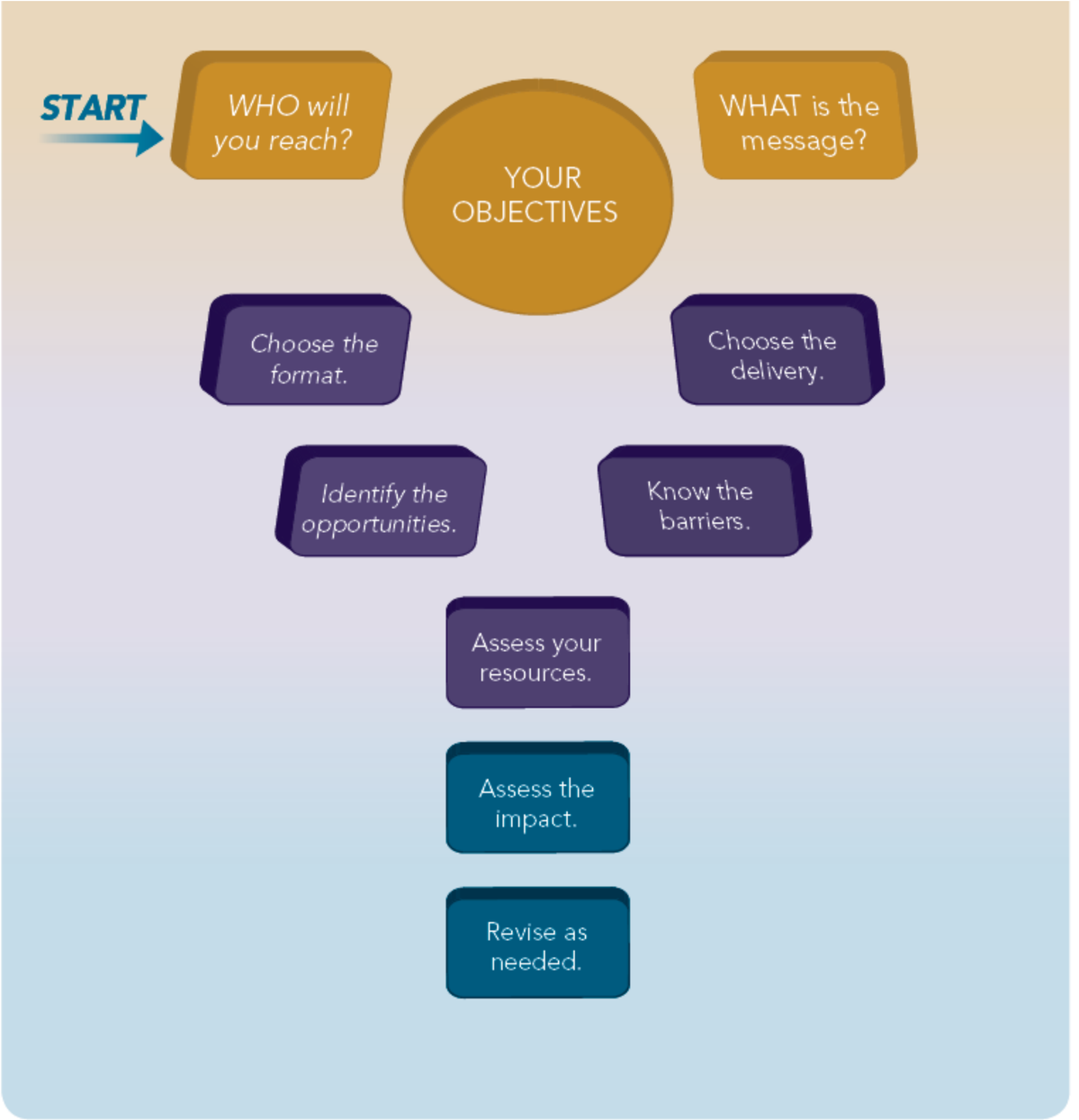
Idea generation

- KT Canada KT planning primer template
- 6 researchers with expertise in evidence synthesis, knowledge translation and one experienced Patient and Public Involvement (PPI) advocate



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Idea generation - results

- Identified the key messages for the resource as

  1) the importance of evidence synthesis

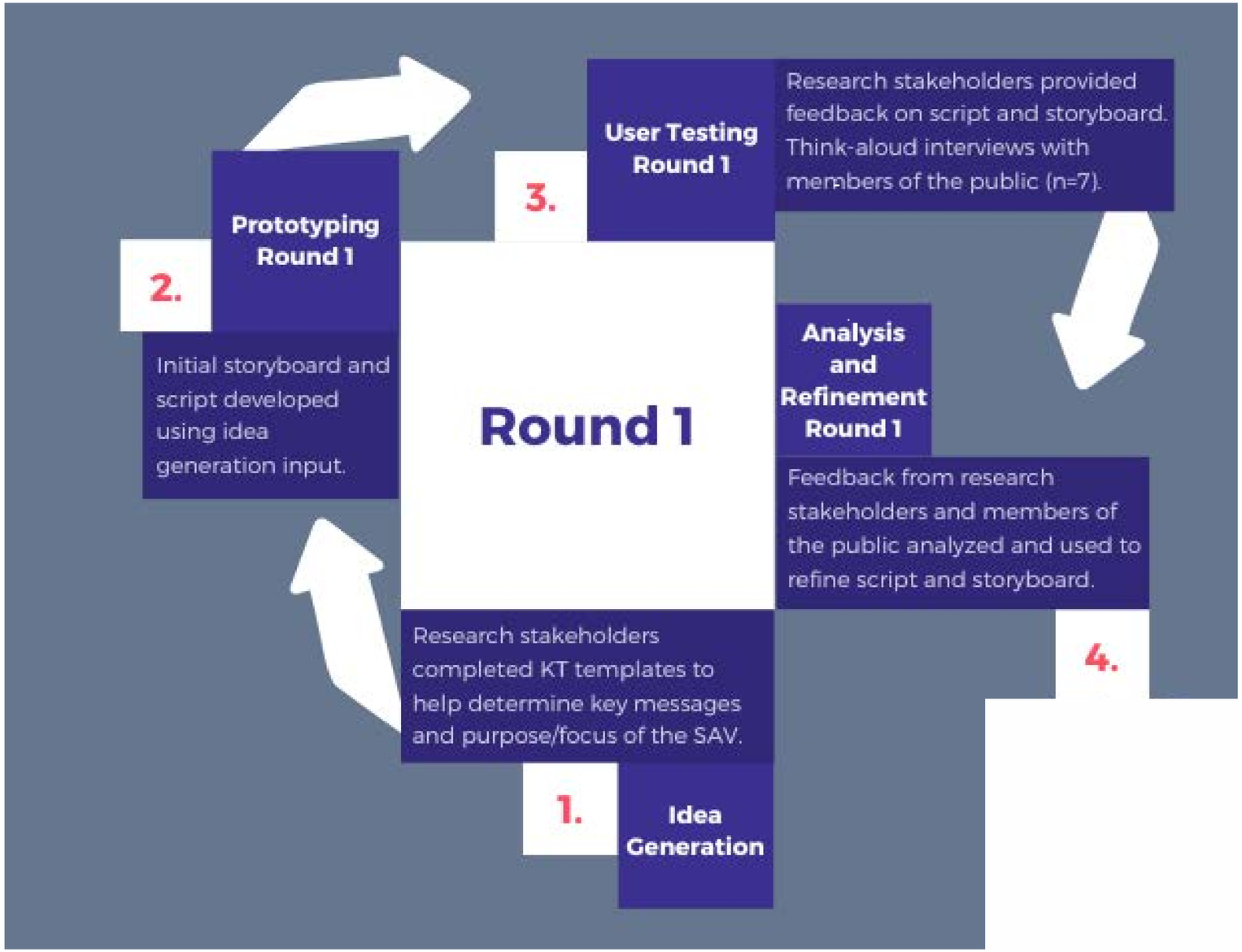
  2) what evidence synthesis is

  3) how it can impact decision-making

KT Template Section	Completed Sections
WHO do we want to reach?	Members of the public with little to no research or professional healthcare background
WHY – What are our objectives?	To create a video-based animation resource for our audience, to increase awareness and understanding of what evidence synthesis is (beyond systematic reviews alone) and its importance and role in informing health decision-making amongst the public
HOW – What format will we use?	We will use a video-based Spoken Animation resource. Animation length will likely be ~3 min + /-1 min (in order to include all determined-to-be necessary key messages).
HOW – How will we develop the resource?	The resource will be co-produced with groups of stakeholders, using a user-centred approach. The first group will comprise researchers with experience of evidence synthesis and knowledge translation to determine the key messages. The second group will comprise members of the public to user test the video development in think-aloud interviews. An adapted version of Morville's Honeycomb Framework for collecting and analysing data will structure the user testing.
HOW – Choose the delivery	YouTube, social media e.g., Twitter
HOW – Assess your resources	One summer student (CD) and two supervisors – evidence synthesis (ET) and technology (EP)

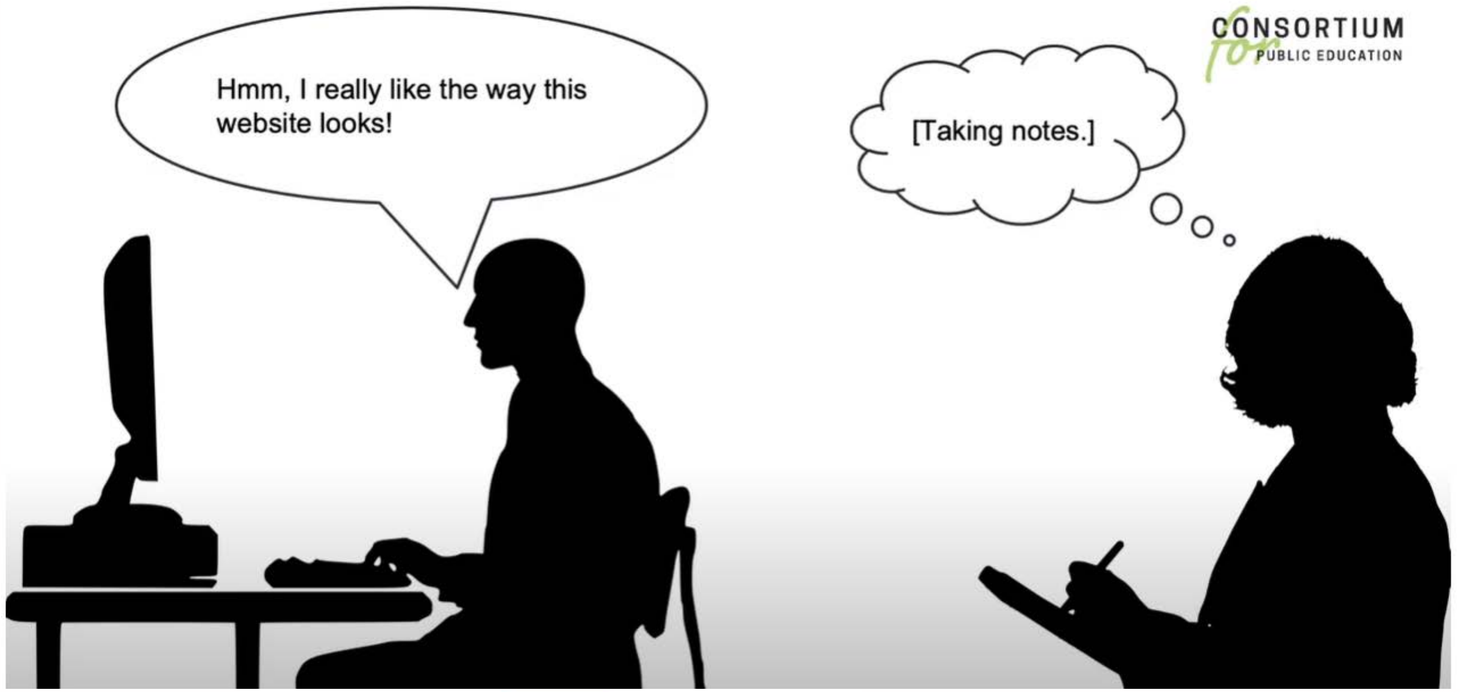
Prototyping – round 1

- Initial storyboard and script developed using key messages
- Storyboard - sketches of each scene and verbal descriptions of approximate visuals scene-by-scene
- Animation style samples



User Testing – round 1

- Convenience and snowball sample
- 7 members of the public
- Think-aloud interviews (lasting 40-60 minutes)
- User experience questionnaires (based on Morville's honeycomb framework)



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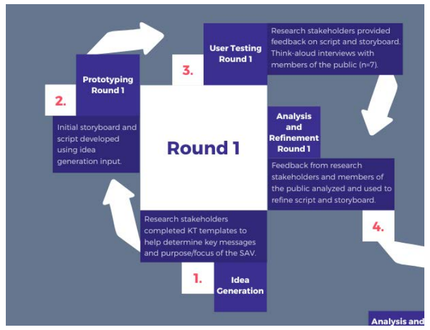
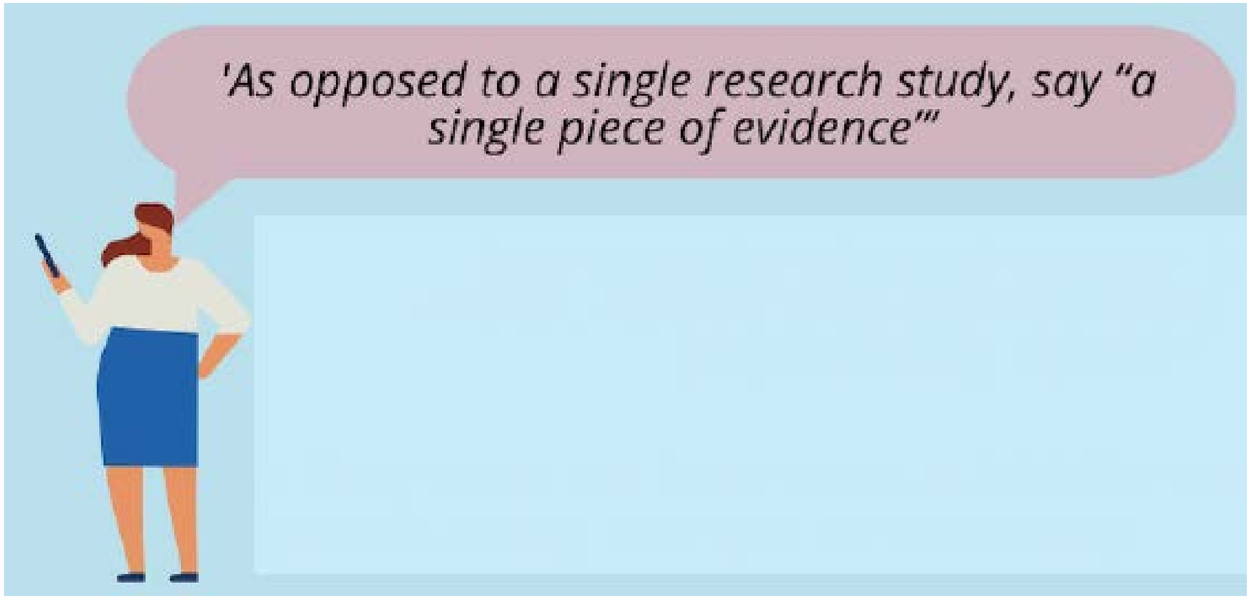
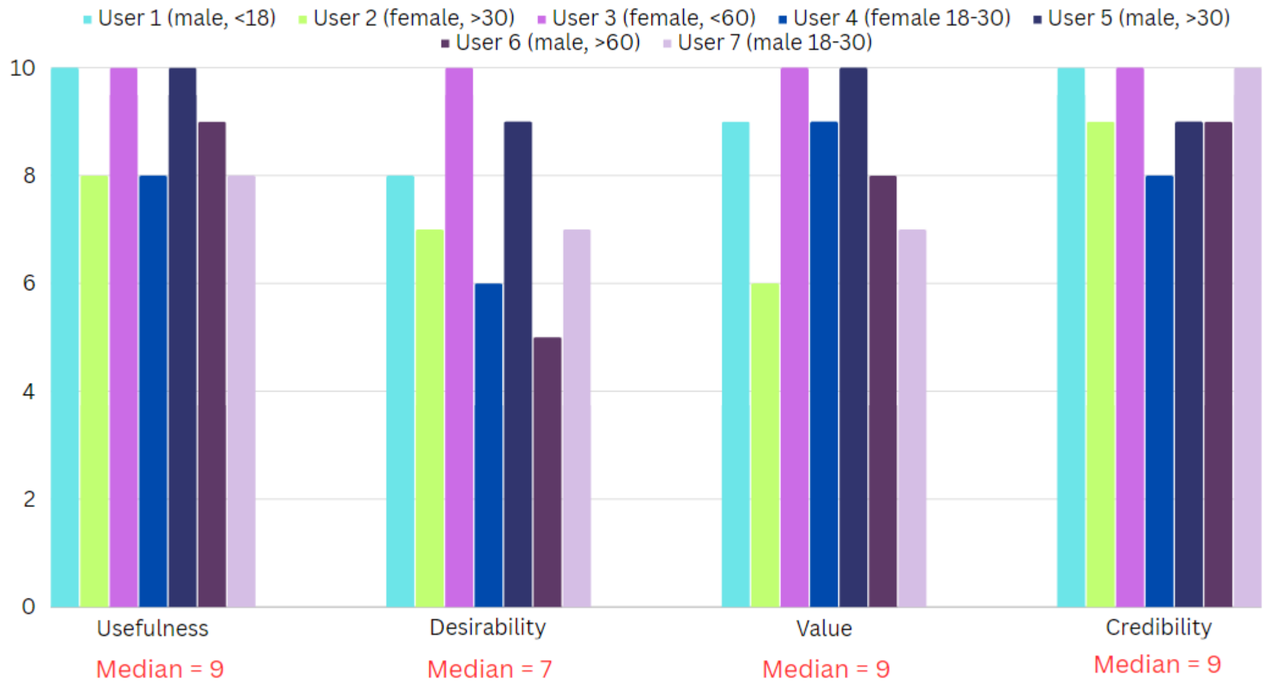


Analysis and Refinement – round 1

- Thinkaloud data - language use, felt animation style
- User experience ratings
- 3 researchers synthesised findings and edited the script and storyboard accordingly





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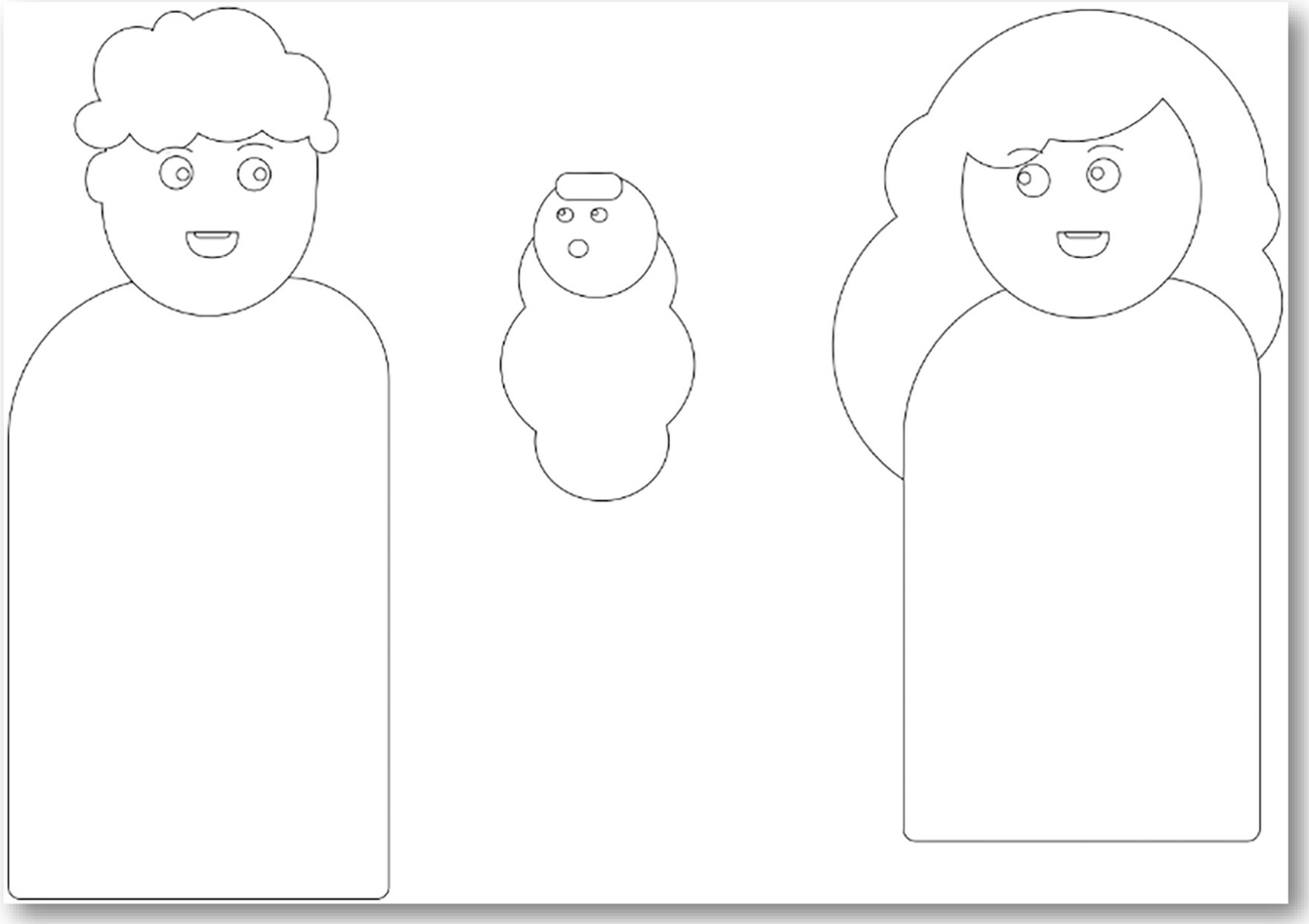
Prototyping – round 1

- Basic video animation developed
- Vector animations
- Audio narration added



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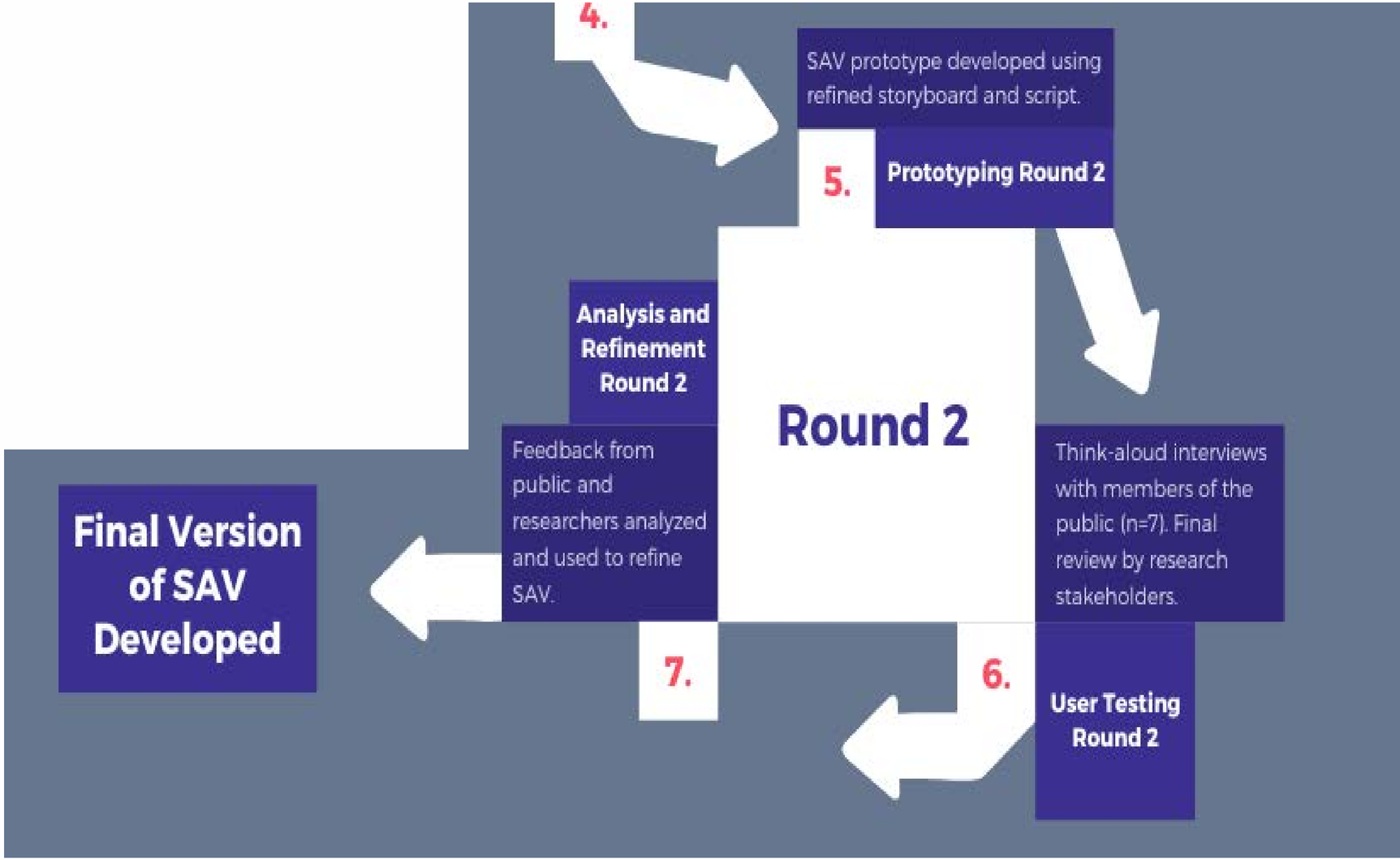
User Testing - round 2

- New sample - 7 additional members of the public
- Think-aloud interviews
- User experience questionnaires



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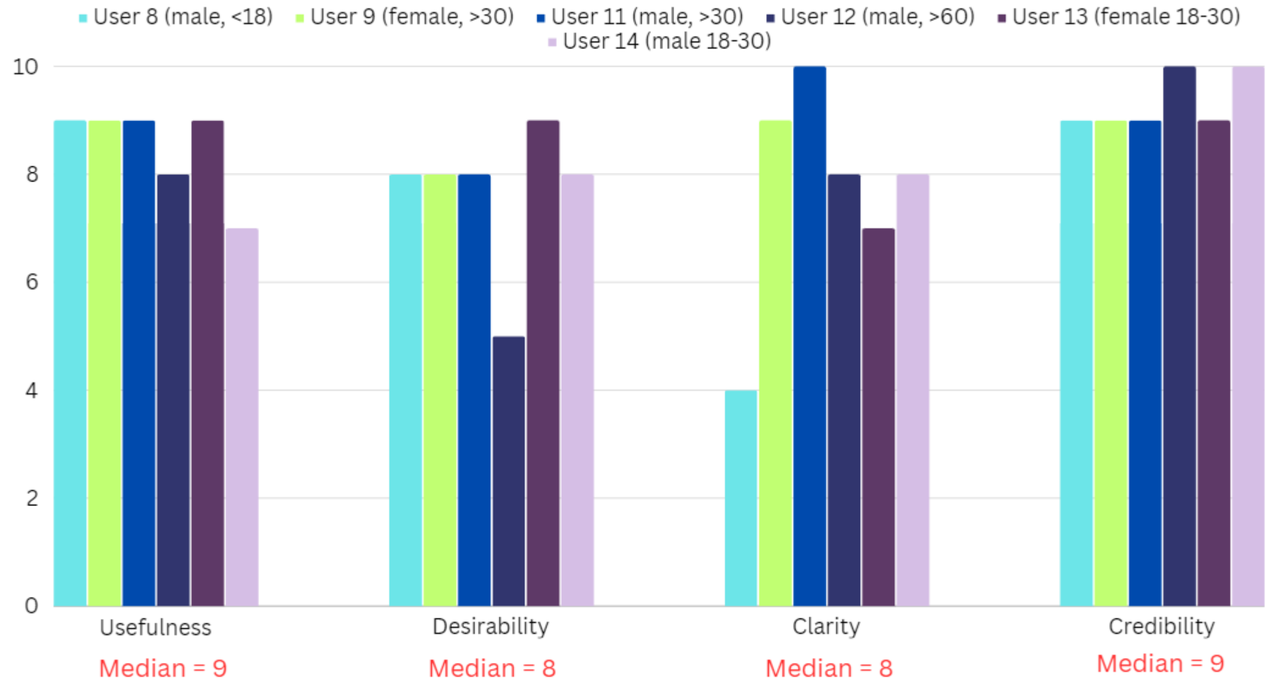
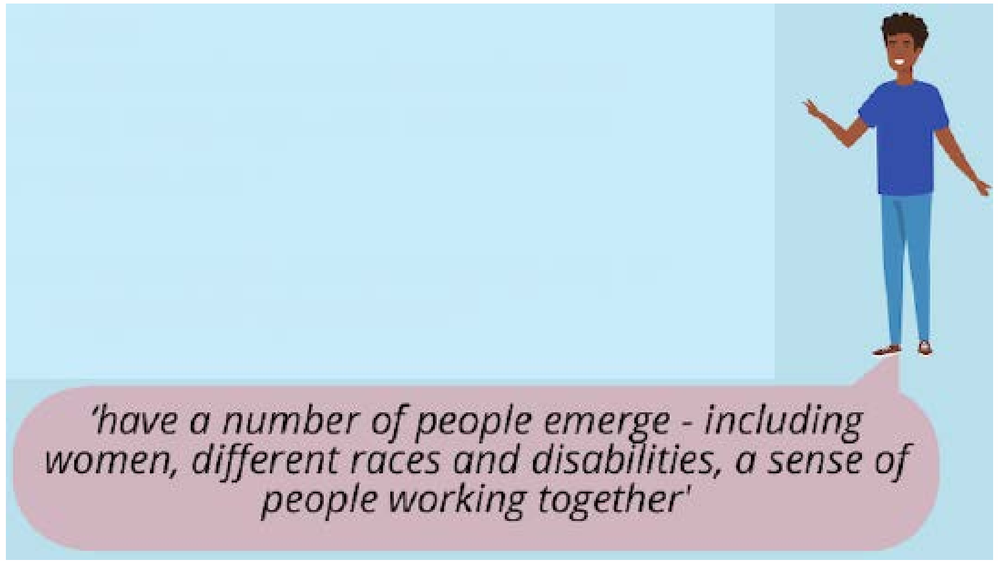
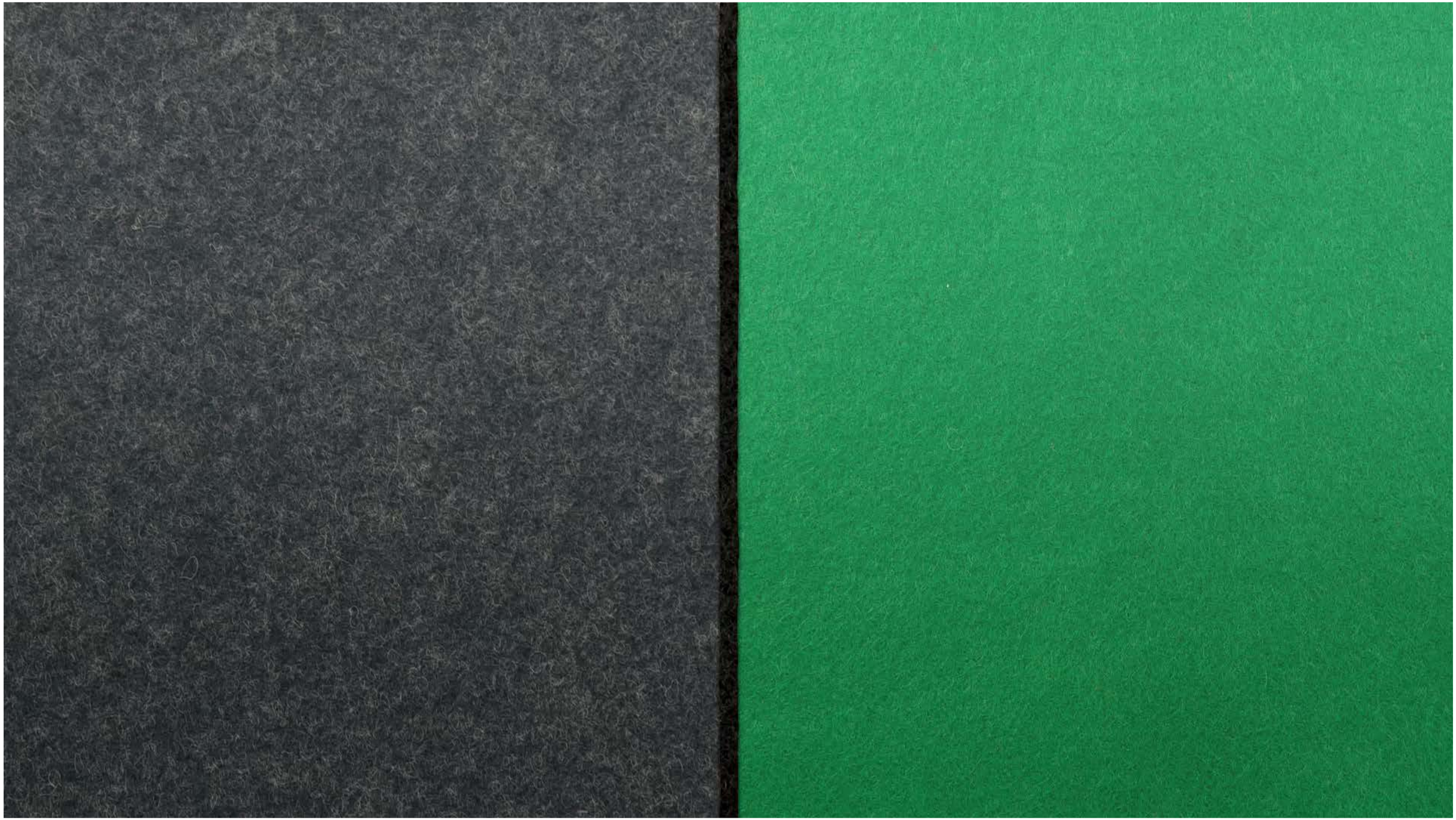
Analysis and Refinement – round 2



- Recommendations to slow speed of visuals and audio, rephrase and language use
- User experience ratings
- Synthesised findings and created sound effects, audio track, stop-motion felt animation applied





https://www.youtube.com/watch?v=nZR0xQmZVQg&t=25s

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Impact on public and patient audience…

- Over 19,000 views, average view duration is > 2 mins
- 10th most viewed video on Cochrane Youtube (out of 506 videos)
- Translated into German and Spanish, exploring Norwegian
- Used in Patient and Public Involvement training globally, e.g. COVID-End, SPOR Evidence Alliance

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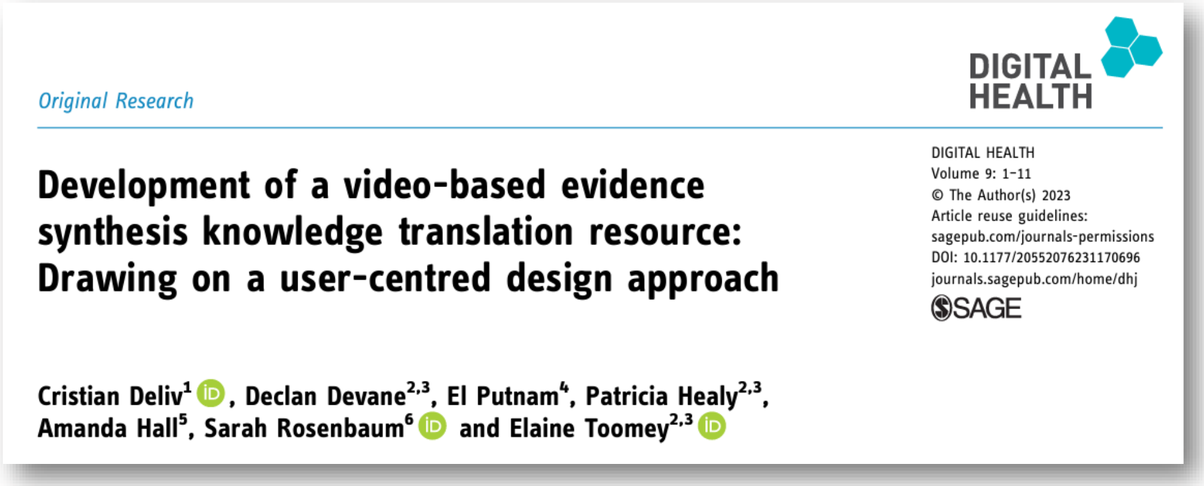
Impact on KT literature…



Original Research

DIGITAL HEALTH

Development of a video-based evidence synthesis knowledge translation resource: Drawing on a user-centred design approach

DIGITAL HEALTH
Volume 9: 1–11
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Cristian Deliv[1], Declan Devane[2,3], El Putnam[4], Patricia Healy[2,3], Amanda Hall[5], Sarah Rosenbaum[6] and Elaine Toomey[2,3]

- Example of how to systematically develop an impactful KT resource to explain a complex topic with limited resources – 8 weeks, €2000 ESI Summer Studentship
- Detailed example of how to involve public contributors through user-centred design methods
- Process helped enhance its credibility, clarity and usefulness

Final reflections…

- Credible source and substantial networks of Cochrane, Cochrane Ireland
- KT Planning Primer and User-Centred Design methods very useful
- Building in research questions within KT projects – impactful KT public resource and academic output
- Working with public audiences requires substantial time and planning
- More money, time and hindsight?
  - Public involvement earlier (planning primer)
  - More systematic approach for analysis and refinement phases, e.g. content analysis, NVIVO
  - How could enhance video view duration – more cycles?
  - Evaluate the effectiveness of the resource, exploring for other methodological topics
- Acknowledge Evidence Synthesis Ireland Summer Studentship funding

MSc in Evidence-Based Future Healthcare

Fully online!

https://tinyurl.com/EBFHCare

- Applications now open for September 2024!
- FutureEvidenceMSc@universityofgalway.ie

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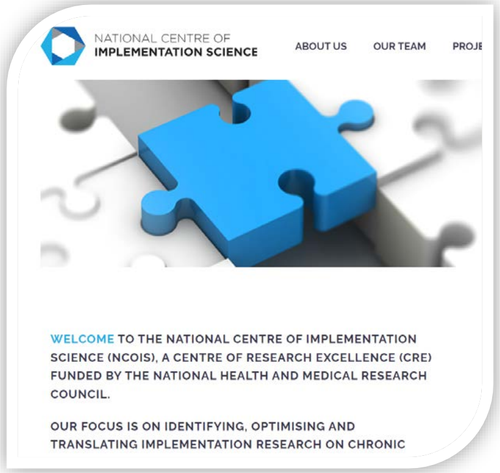
Thank you ☺

Take a look at our website **www.ncois.org.au**



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