

# Partnerships between deaf people and hearing dogs: Learning from a randomised controlled trial with a third sector organisation of a complex non-traditional intervention

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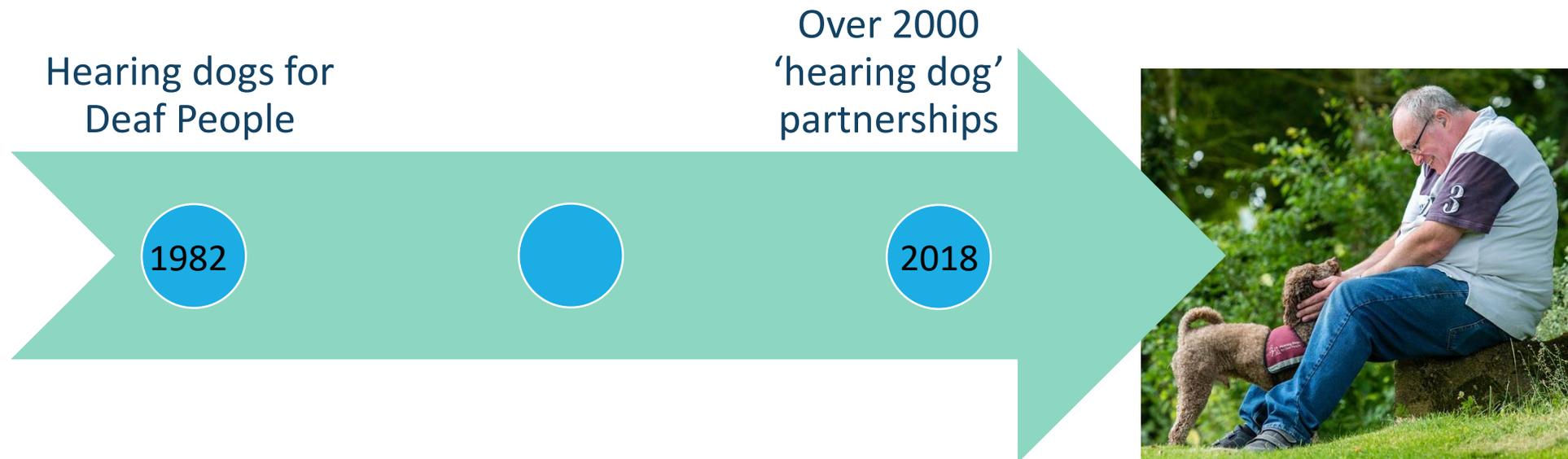
# The objectives of this presentation

- Describe what hearing dogs do and the charity that provides them
- Provide an overview of PEDRO study
- Present the key challenges we faced when designing the RCT
- Offer our solutions to these challenges
- Outline study progress to date



# What are hearing dogs? (And who provides them?)

- Hearing dogs are a specific kind of assistance dog, trained to support people with severe or profound hearing loss.



- Training covers sound and behavioural support
- Funded by charitable donation.



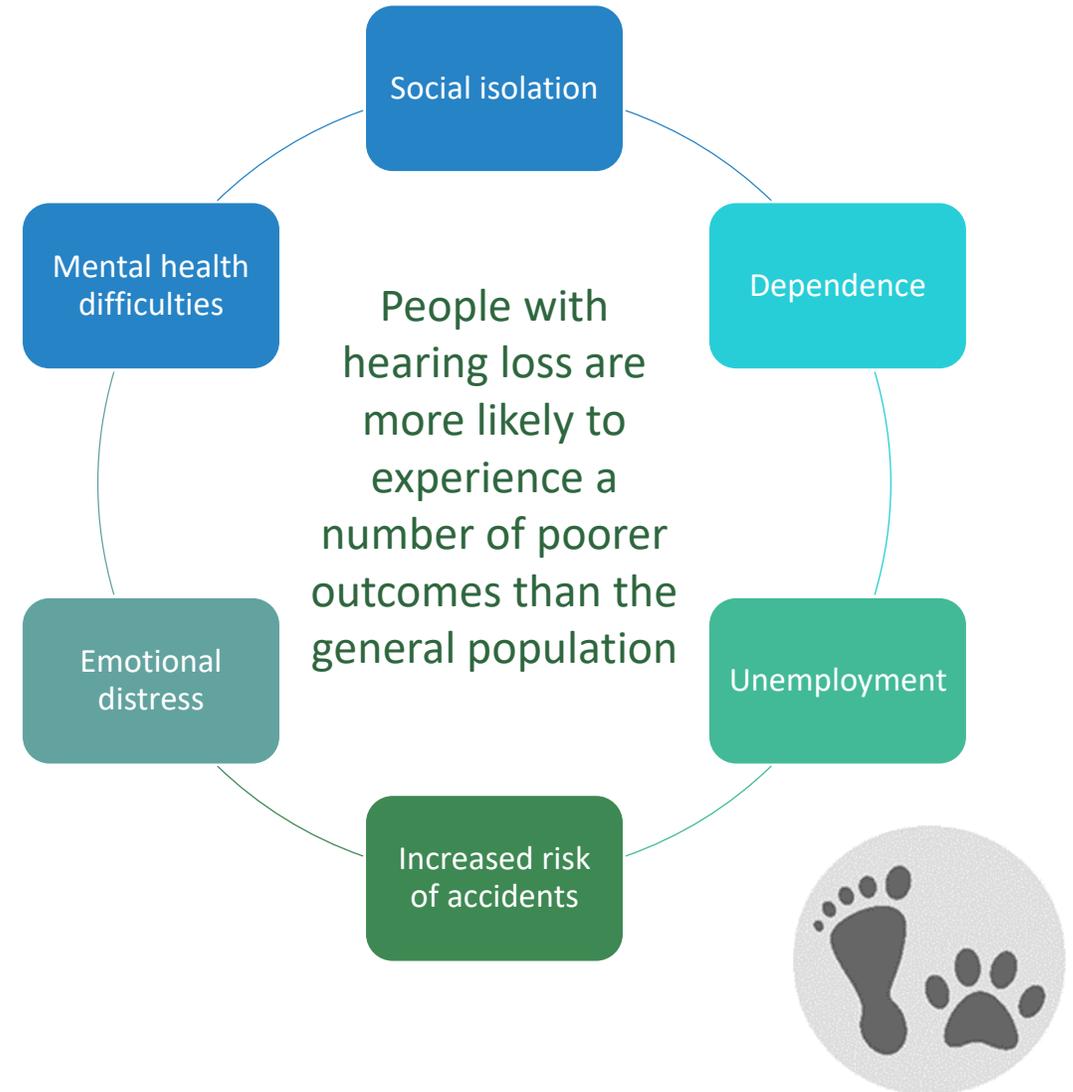
# The impact of a hearing dog partnership

1. 'Sound support' recognising, discerning and, if appropriate, alerting individual to a range of sounds (both universal and person-specific)
2. Additional benefits
  - ✓ improved well-being and quality of life
  - ✓ greater participation (work, activities of daily living, social networks)
  - ✓ independence
  - ✓ ..for those with acquired hearing loss, a sense of regaining their lives.

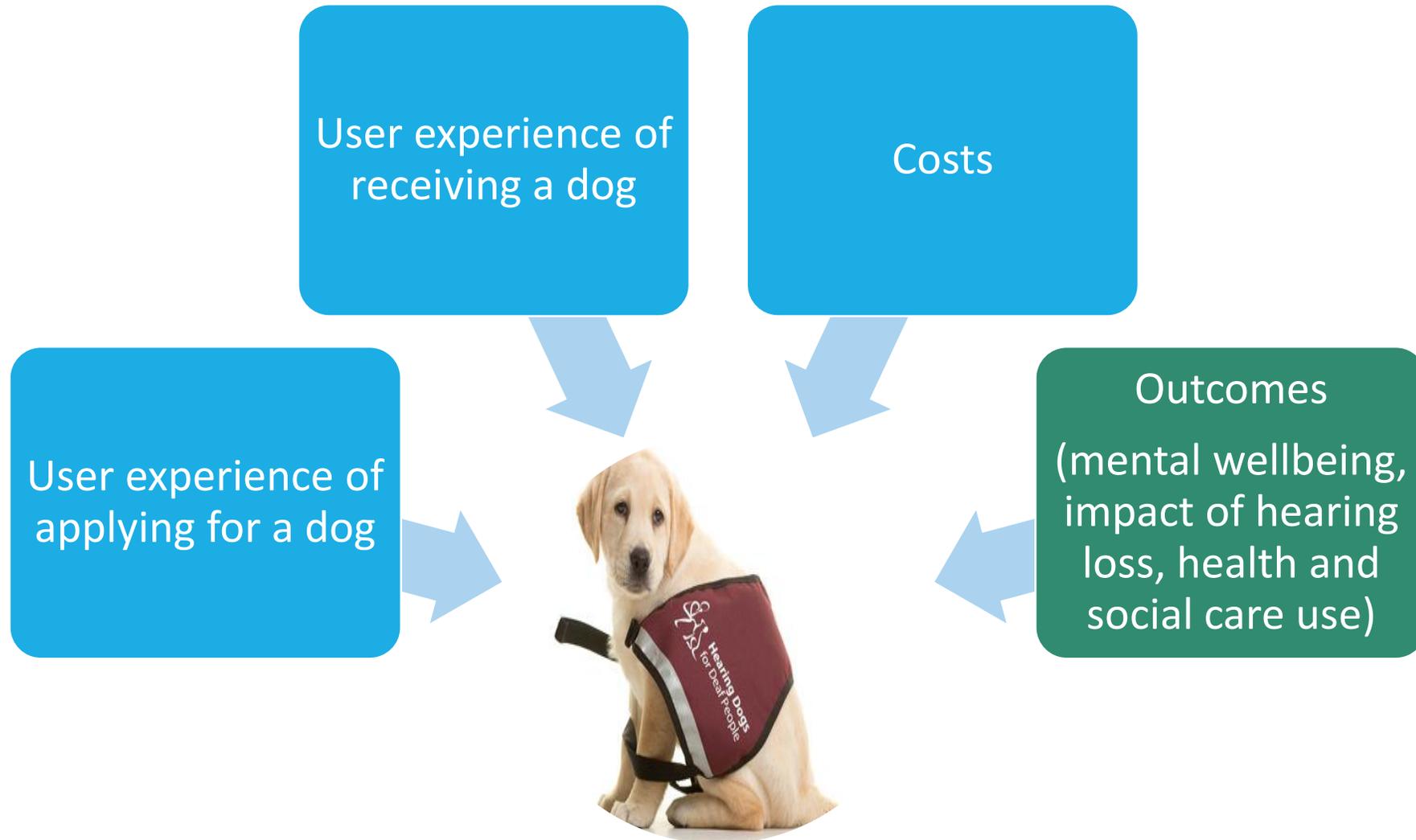


# Rationale for PEDRO

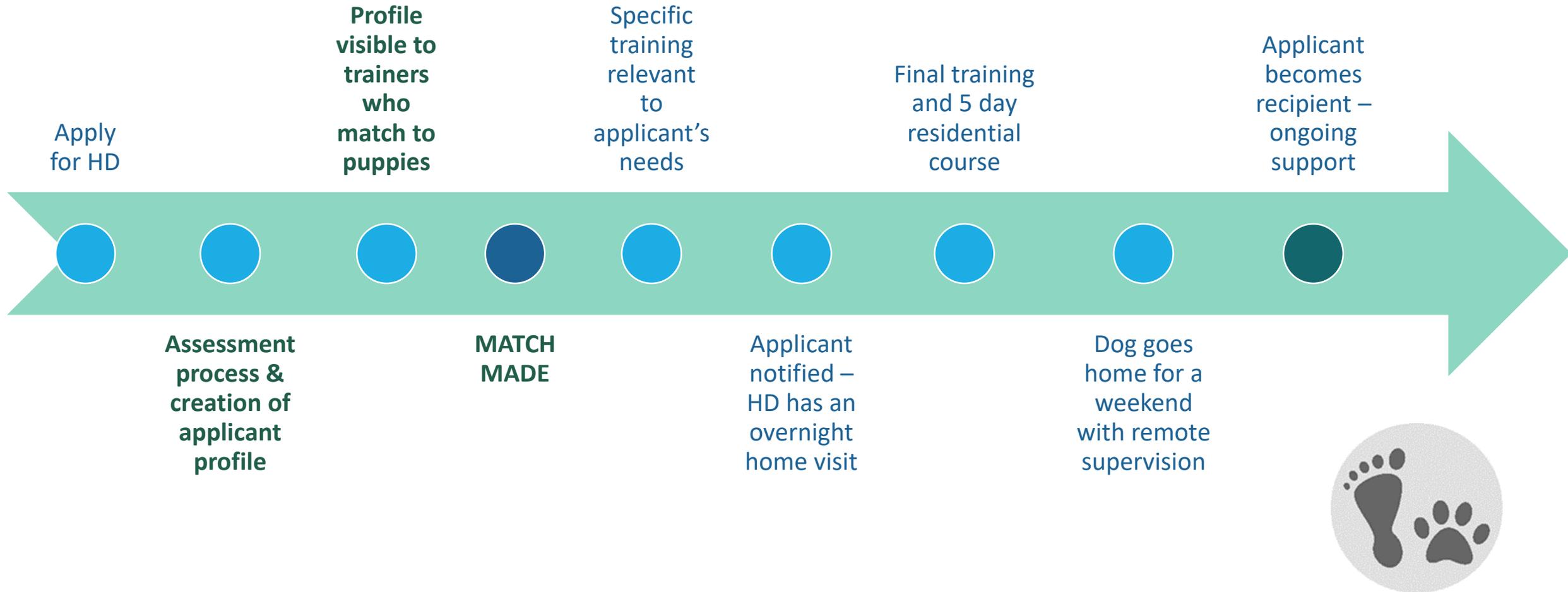
- 800,000 people in the UK have severe or profound hearing loss (HDfDP 2018)
- Existing evaluations of hearing dogs are limited to a handful of poor quality studies.
- A research team at the University of York worked closely with Hearing Dogs for Deaf People to develop an acceptable study design.



# PEDRO: The study objectives



# Incorporating a trial into an existing intervention



# Key Methodological Challenges

## 1. Designing a robust RCT

Fulfilling the charity's maximum wait time commitment

Incorporating the charity's scrupulous matching process



# Key Methodological Solutions

## 1. Designing a robust RCT

Fulfilling the charity's maximum wait time commitment

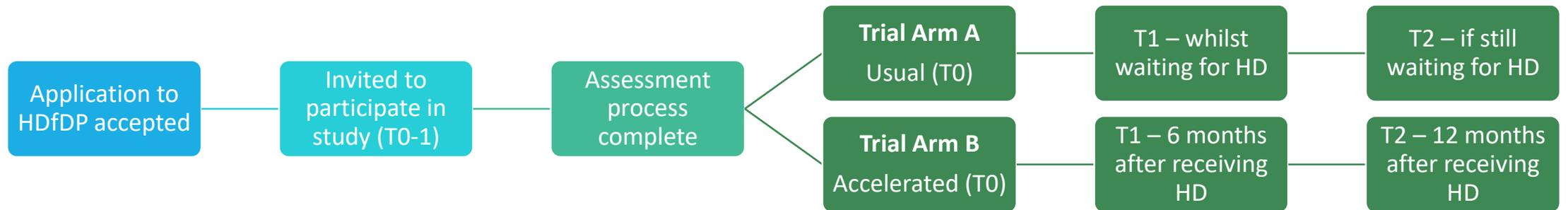
- Participants are randomised to 'accelerated' vs 'usual application timeline' (UAT) groups

Incorporating the charity's scrupulous matching process

- Used a matched pairs design



# PEDRO participant flowchart



## NOTE:

Intention to Treat used

Data administration for each pair anchored to Arm B participant receiving dog



# Key Methodological Challenges

## 2. Adhering to protocol timeline and arm allocation

Outcomes data collection triggered by activity within the charity not visible to research team

Maintaining adherence to trial arm allocation



# Key Methodological Solutions

## 2. Adhering to protocol timeline and arm allocation

Outcomes data collection triggered by activity within the charity not visible to research team

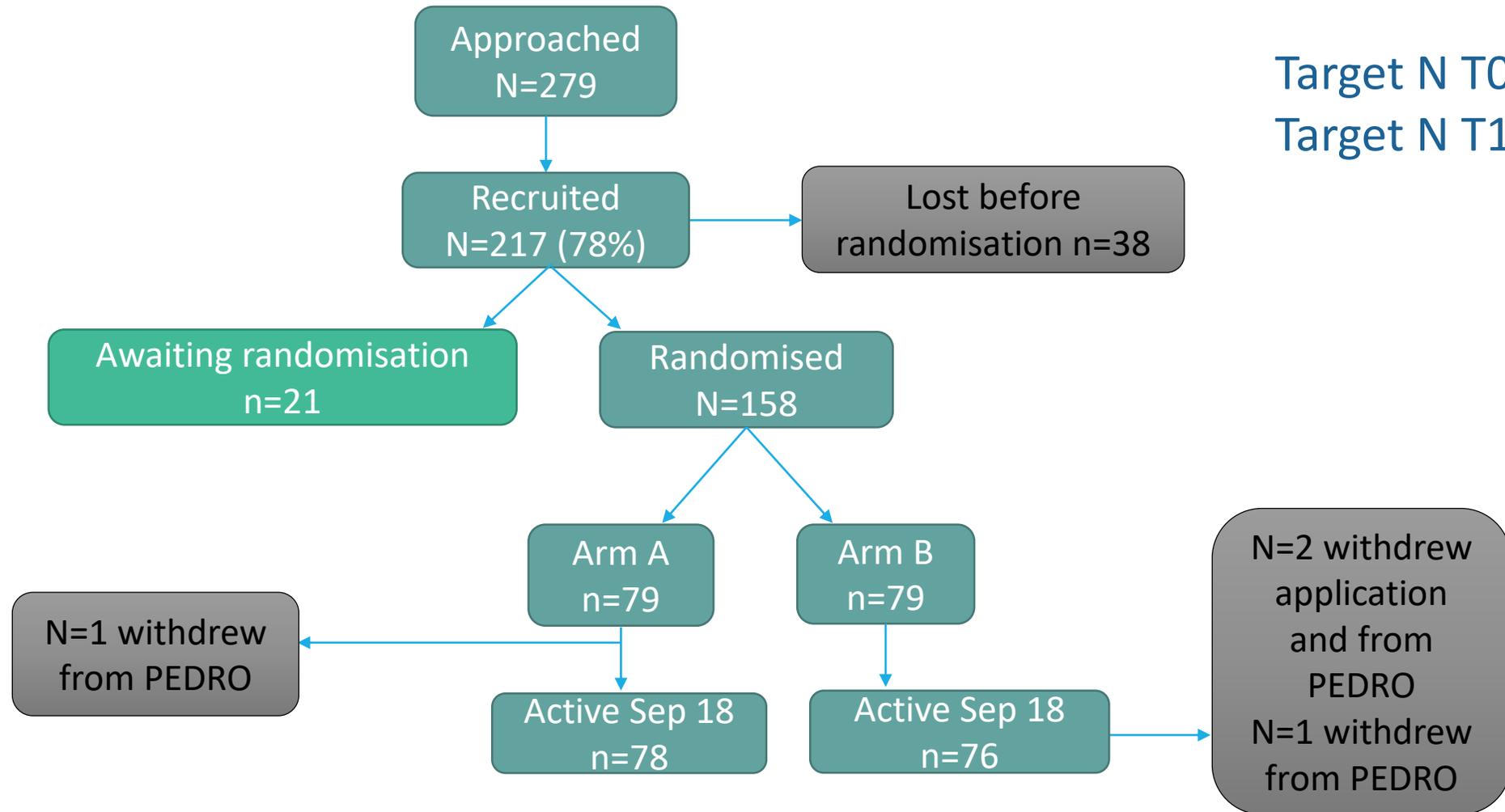
- Based at charity headquarters, a Study Support Officer has controlled access to HDfDP's databases and administers research questionnaires.
- They have no access to the data collected.

Maintaining adherence to trial arm allocation

- Ongoing liaison with the charity via the Study Support Officer
- Recognition that some deviation may be necessary, but encouragement that this was minimal



# Recruitment to the Study



Target N T0- 162  
Target N T1- 128



# Live retention figures (Sept 2018)

	T0-1 (point of recruitment)	T0 (point of randomisation) *	T1 (6 months after Arm B receives dog)	T2 (12 months after Arm B receives dog)
Arm A	78	69/74 (93%)	12/13 (92%)	3/3 (100%)
Arm B	76	68/73 (93%)*	10/11 (91%)	3/3 (100%)

\*T0 only sent if time between T0-1 and T0 > 12 weeks therefore total N lower than T0-1.



# Findings and conclusions

- ✓ The positive working relationship between the researchers and charity has been maintained.
- ✓ The Study Support Officer role has proved very successful.
- ✓ Protocol adherence is, to date, extremely good. Only two Arm A participants have had their allocation overruled.
- ✓ Charities can be keen to collaborate on rigorous evaluations of their services.
- ✓ Trials can be achieved in these contexts.



# The research team



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**Lucy Stuttard**, Researcher

**Jane Maddison**, Researcher

**Emese Mayhew**, Researcher

**Philip Boyle**, Study Support Officer

**Prof. Catherine Hewitt**, Trial Design

**Caroline Fairhurst**, Statistician

**Helen Weatherall**, Health Economist

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