Department of Health & Social Care

LSE CPEC CARE POLICY AND EVALUATION CENTRE

Laria Local Area Research + Intelligence Association

University of Salford MANCHESTER

Using Discrete choice experiments to help services and commissioners to improve the experience of people who need care, understand different groups and secure better sustainability: a case example with application to homelessness.

Presenters:

Dr Michela Tinelli, Evaluation Leader – London School of Economics and Political Science
Mr Peter Moore, Programme Manager – Oxfordshire Out of Hospital Care Team

LARIA Event and Awards
16 November 2023

Expert Focus just start talking

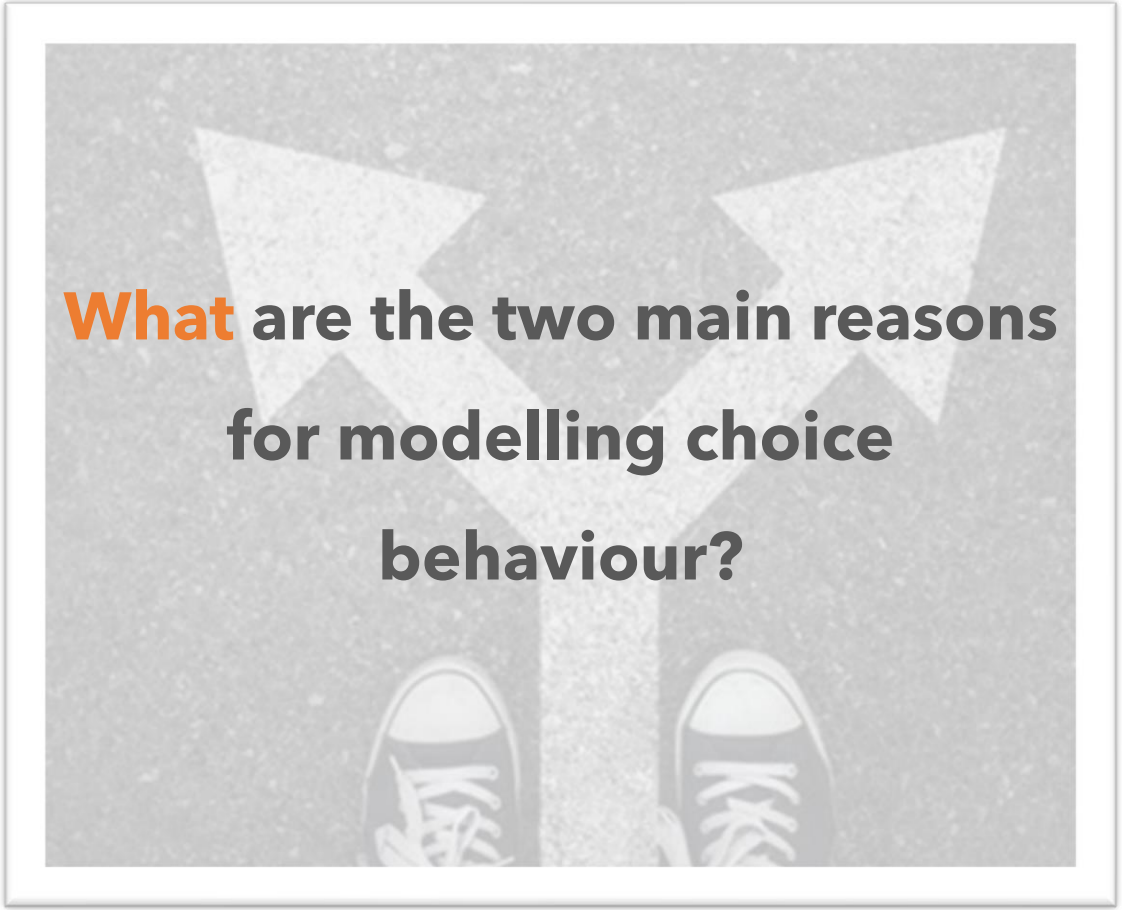
KING'S College LONDON

Human choices drive demand for products and services.

Transport: mode choice, route choice, destination, car ownership, departure time, etc.

Health decisions: treatment choices, insurance, lifestyle, etc.

Social care decisions: resource allocation, service design and improvement, elderly care, long-term care planning, etc.



1. **"Understanding" current behaviour**
   Why does somebody choose a specific product in a given setting? , Used extensively in cost-benefit analysis, etc.

2. **Predicting future behaviour**
   What would somebody choose in a future setting? , Used extensively in demand forecasting with new or reconfigured services or a changed population.

1. ***Why* preference data are needed in social care homelessness?**

and

2. ***Who* needs such information?**

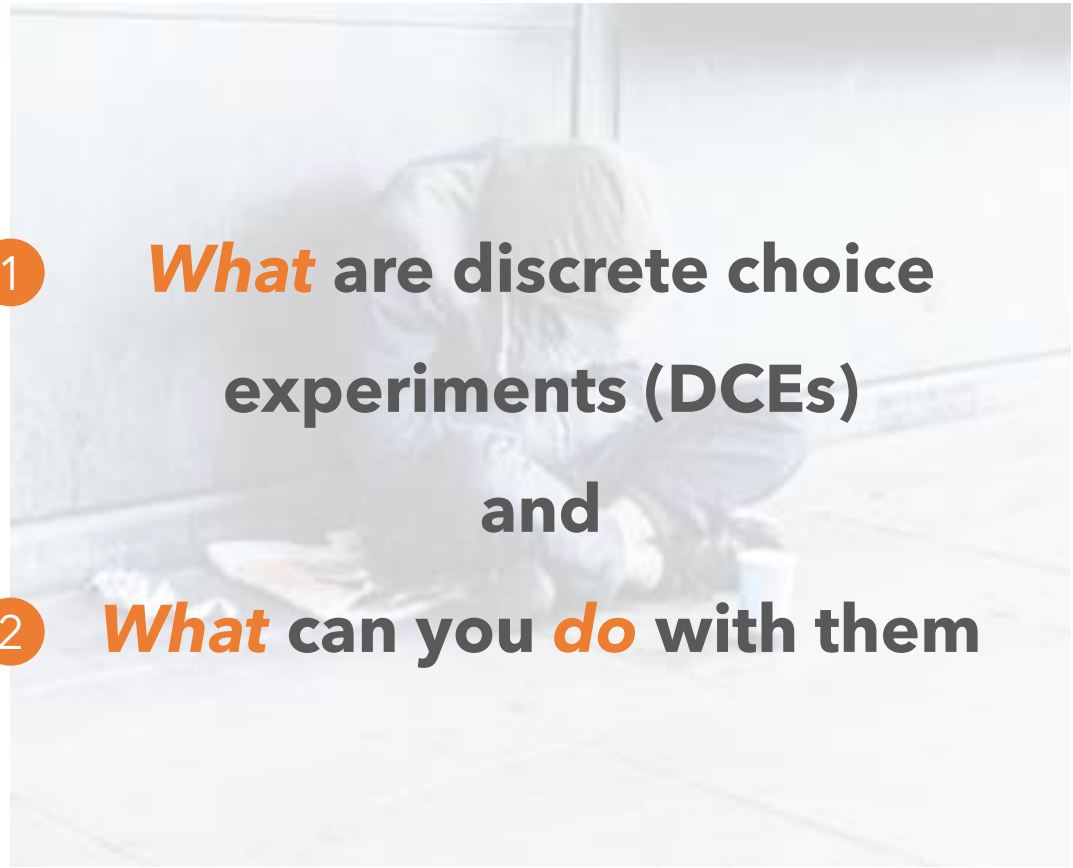
1. Lack of robust information on how people who are homeless value services and other support to **inform better service provision.**

2. Such data are needed by **service planners, commissioners and service providers** to:
   - Inform the ***design***, ***delivery***, ***implementation*** and ***sustainability*** of services.
   - Increase **engagement** and **reach people.**
   - And make sure that, if preferences are met, people do not go back to rough sleeping.

1.
- Choice modelling is a flexible tool (originated from market research).
- A commonly used method in health services, but they are less frequently used in social care.
- It enables measurement of the strength of preferences between alternative scenarios or types of service provision.
- A discrete choice experiment survey is used to collect data.

2. **Analysing DCE data you can measure:**
- How preferences are influenced by each attribute of a service.

Respondents value who provide care ***more than*** location of care.



1. ***What*** **are discrete choice experiments (DCEs) and**
2. ***What*** **can you *do* with them**

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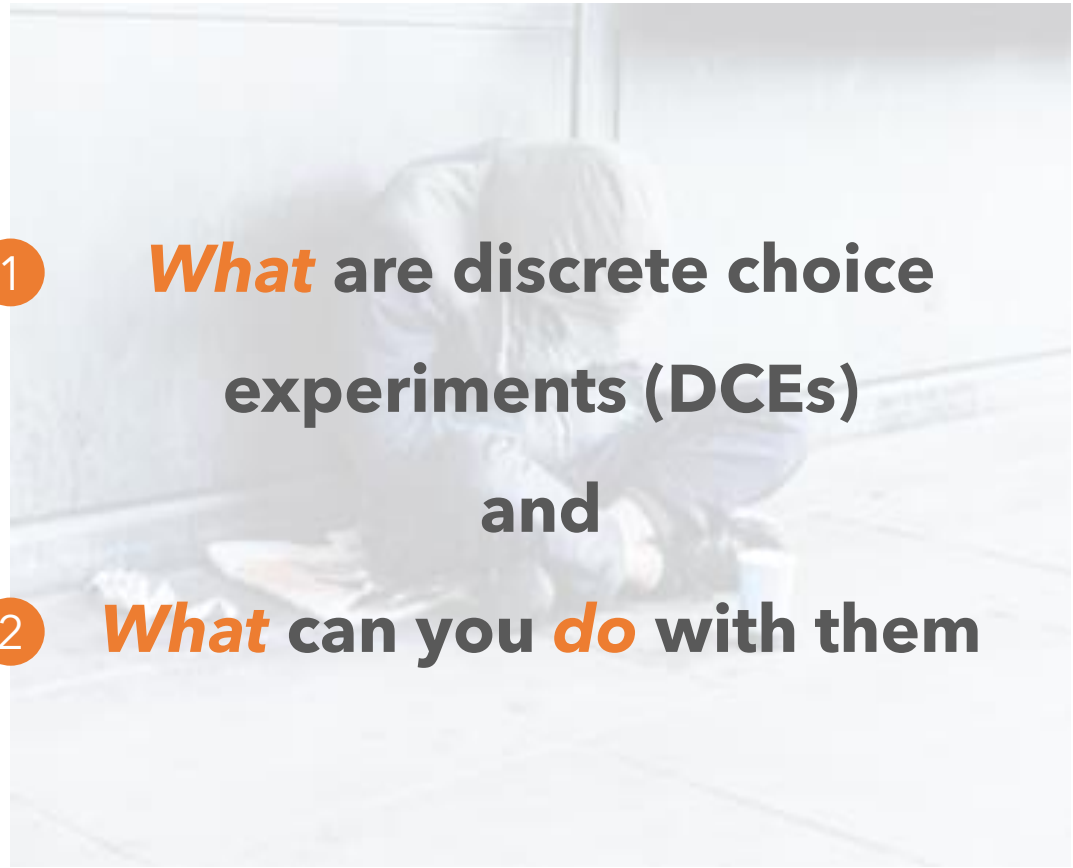
2. **Analysing DCE data you can measure:**
   - How preferences are influenced by each attribute of a service.

Time they are willing to wait for Service A is 3 days (vs. service B 10 days)



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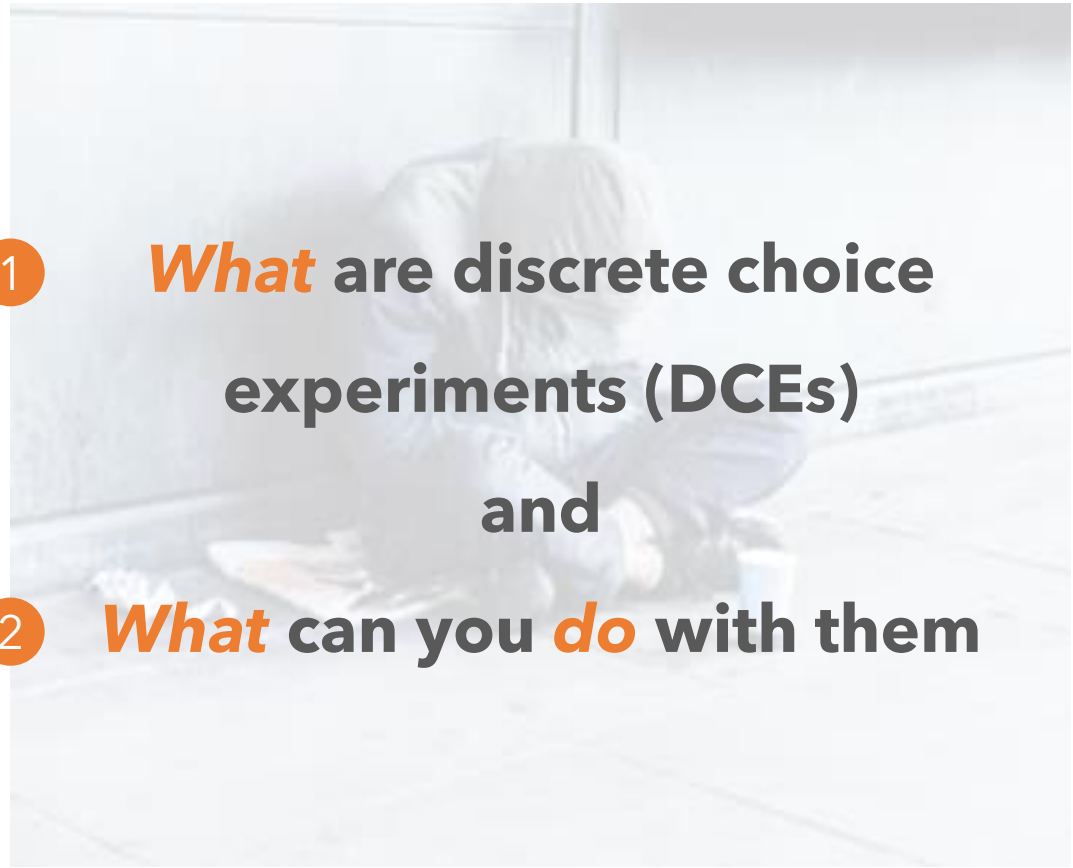
2 **Analysing DCE data you can measure:**
- How preferences are influenced by each attribute of a service.

85% prefer Service A (vs. 15% Service B)



1 ***What*** **are discrete choice experiments (DCEs) and**

2 ***What*** **can you *do* with them**

Applying DCEs to social care (homelessness)

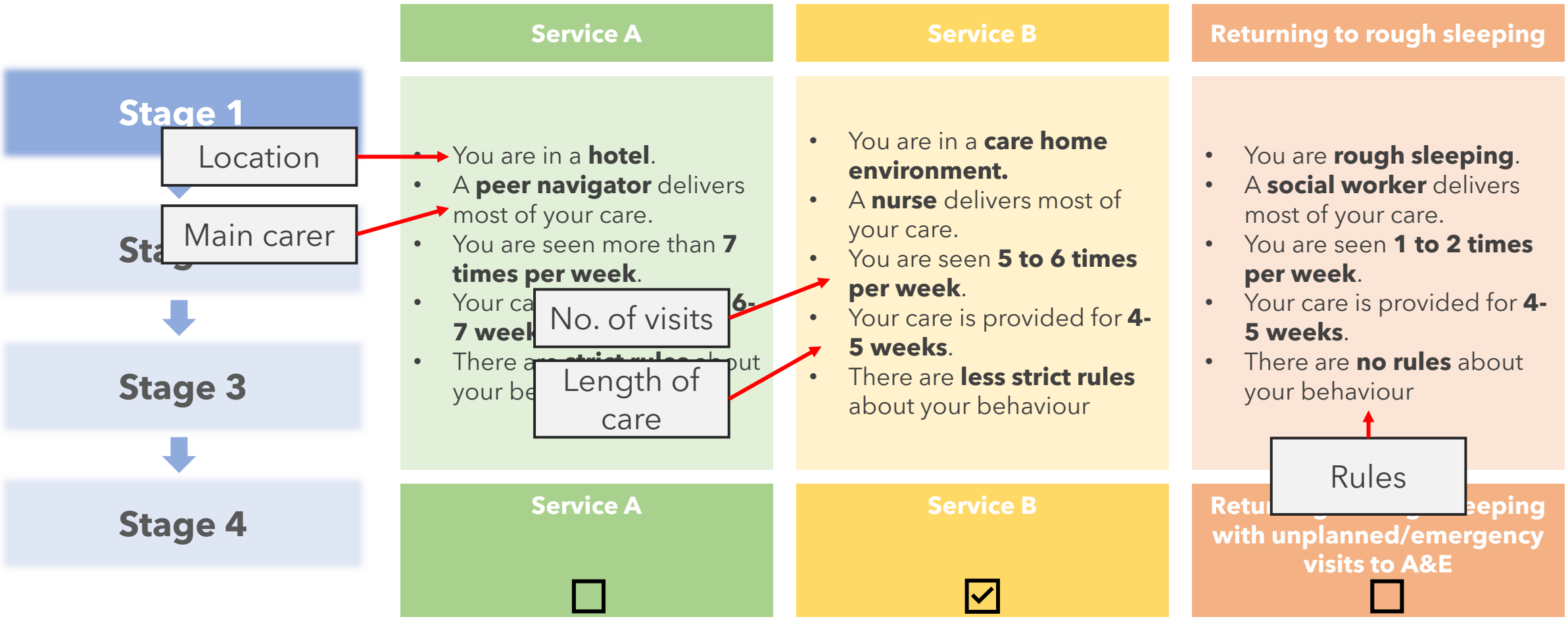
Evaluation of the Out-of-Hospital Care Models (OOHCMs) programme for people experiencing homelessness in England (2021-23)

- Funded by the Department of Health and Social Care (£16M).
- Currently underway in 17 local authority test sites across England.
- The evaluation aims to explore how support for homeless patients can be integrated as part of the new discharge from hospital operating model.

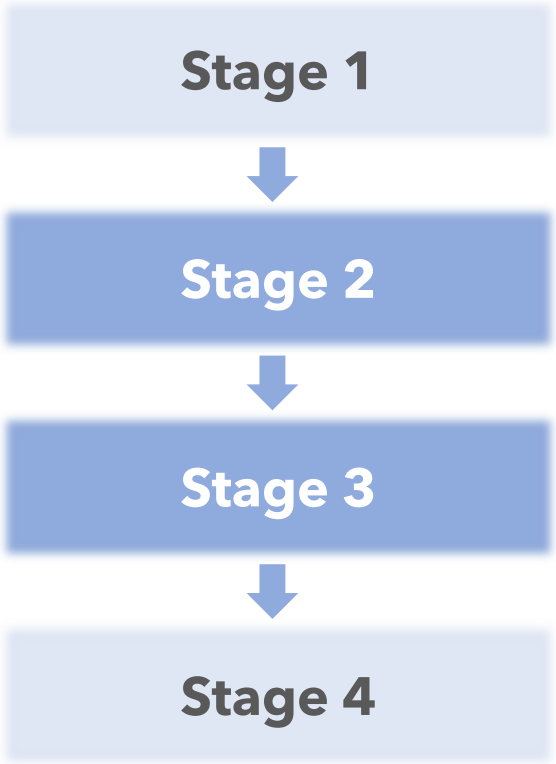
DCEs are applied as part of a larger programme of research:

- To explore which elements of OOHCMs people who are homeless most value.
- To model the probability of uptake for OOHCMs.

Stage 1: Identify attributes important to people, their levels and choice format



Stage 2 & 3: Choice Development and Testing



Stage 2: Development

- Development done in co-production with stakeholders (commissioners, service providers and people who are homeless).
- Attributes and levels informed based on our previous research.
- Mathematical modelling was applied to create the set of questions for the DCE questionnaire.

Stage 3: Feasibility and Piloting

- Feasibility was tested with people who are homeless.
- Piloting included the first 10 persons from one site. We tested data collection, cleaning processes and the model.

Stage 4: Response Analysis

Stage 1

Stage 2

Stage 3

Stage 4

112 participants

Sociodemographic features

Male 73%

Female 27%

Average age: 48

91% People experienced better health at exit (compared to when they entered services)

Location and experience of care

65% Outside vs **35%** within London

57% Pathway 1 vs **43%** Pathway 2

Hospital (D2A) discharge models implemented in England

- **Pathway 0**: Patient returns to usual place of residence (sleeping on the street).
- **Pathway 1:** 'Take home and 'settle-in' support (**Reablement**).
- **Pathway 2:** – Specialist (bedded) **intermediate care and step-down** houses.
- **Pathway 3:** For people who require bed-based 24-hour care (care home).

Stage 4: Response Analysis

Stage 1

Stage 2

Stage 3

Stage 4

Preferred model, most valued attributes and their relative importance

MESSAGE 1:
Respondents do not want to go back to rough sleeping

They prefer any alternative arrangement to going back to rough sleeping (when carer type, number rules, frequency of visits and period of care remain the same)

MESSAGE 2:
All service characteristics are valued* and the MAIN CARER (housing support worker) ranked first

1. **Housing support worker as MAIN CARER** (vs. all other options)
2. **No RULES** (vs. rules about behaviour where you live)
3. **FREQUENCY OF VISITS (per week)** (they value less visits per week)
4. **Own flat/house as LOCATION** (vs. all other options)
5. **PERIOD OF CARE (weeks)** (they value a longer period)

* *MNL regression modelling, significance at 1% level*

Stage 4: Response Analysis

Stage 1

Stage 2

Stage 3

Stage 4

Probability of services uptake (changing one attribute at a time)

Alternative Service	Returning to rough sleeping*
• You are in **your own home.**	• You are **rough sleeping**.
• A **nurse** delivers most of your care.	• A **nurse** delivers most of your care.
• You are seen **1 to 2 times per week**.	• You are seen **1 to 2 times per week**.
• Your care is provided for **4-5 weeks**.	• Your care is provided for **4-5 weeks**.
• There are **no rules** about your behaviour.	• There are **no rules** about your behaviour.
82%	**18%**

Stage 4: Response Analysis

Probability of services uptake (changing one attribute at a time)

Stage 1

Stage 2

Stage 3

Stage 4

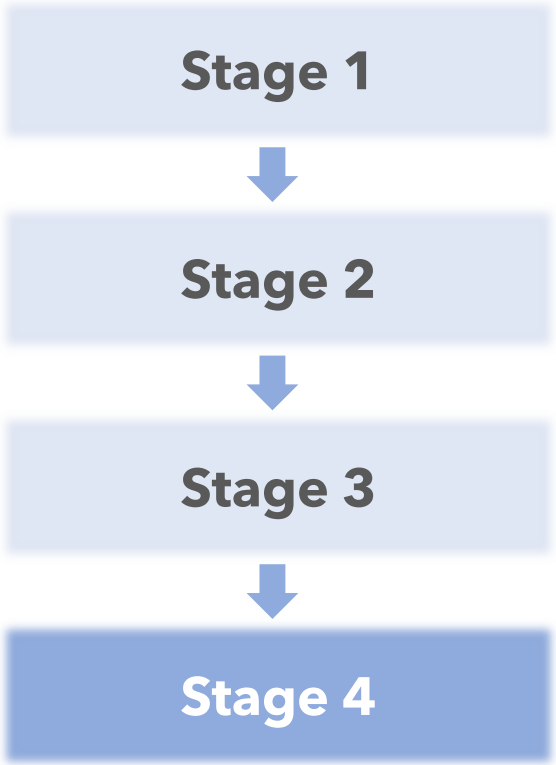
Alternative Service	Returning to rough sleeping*
• You are **rough sleeping**.	• You are **rough sleeping**.
• A **nurse** delivers most of your care.	• A **nurse** delivers most of your care.
• You are seen **1 to 2 times per week**.	• You are seen **1 to 2 times per week**.
• Your care is provided for **4-5 weeks**.	• Your care is provided for **4-5 weeks**.
• There are **some rules** about your behaviour.	• There are **no rules** about your behaviour.

31%

69%

Stage 4: Response Analysis

Probability of services uptake (changing multiple attributes at a time)



Alternative Service	Returning to rough sleeping*
• You are in **your own home.**	• You are **rough sleeping**.
• A **housing support worker** delivers most of your care.	• A **nurse** delivers most of your care.
• You are seen **3 to 4 times per week**.	• You are seen **1 to 2 times per week**.
• Your care is provided for **10-12 weeks**.	• Your care is provided for **4-5 weeks**.
• There are **no rules** about your behaviour.	• There are **no rules** about your behaviour.

100%

0%

MESSAGE 3: preferred model of care

Comments

- DCE survey was well received by study participants.
- Response rate 37% of the total cohort of 300 people enrolled from the 10 sites participating in the DCE survey.

Analysis of DCE data indicates:

1. Respondents do not want to go back to rough sleeping.

2. All service characteristics are valued and the three top characteristics are:
   1st: Main carer (housing support worker)
   2nd: No rules and
   3rd: Decreased frequency of visits.

3. **The preferred service model would offer:**
   - Housing support worker comes to their home
   - 3 to 4 times per week
   - Care for 10 -12 weeks
   - No rules about behaviour.

Evaluation of the Out-of-Hospital Care Models (OOHCMs) programme for people experiencing homelessness in England (2021-23)

17 integrated care systems in England

97 beds

99 Staff members

7 economic case story analyses

2 financial years (2021-22, 2022-23)

10 reports for local users

10 dynamic online dashboards for local users

12 dynamic online dashboards for national users

272 people completed the questionnaires

788 questionnaires collected

1254 people supported

50+ metrics featured in the dashboards

A key aim of the *'OOHCM Programme* was **to support individual test sites to develop a *'dashboard of key indicators'*** that could then be used in their business plans to make the strongest case possible for future funding. But also, to contribute to the broader landscape of national decision-making.

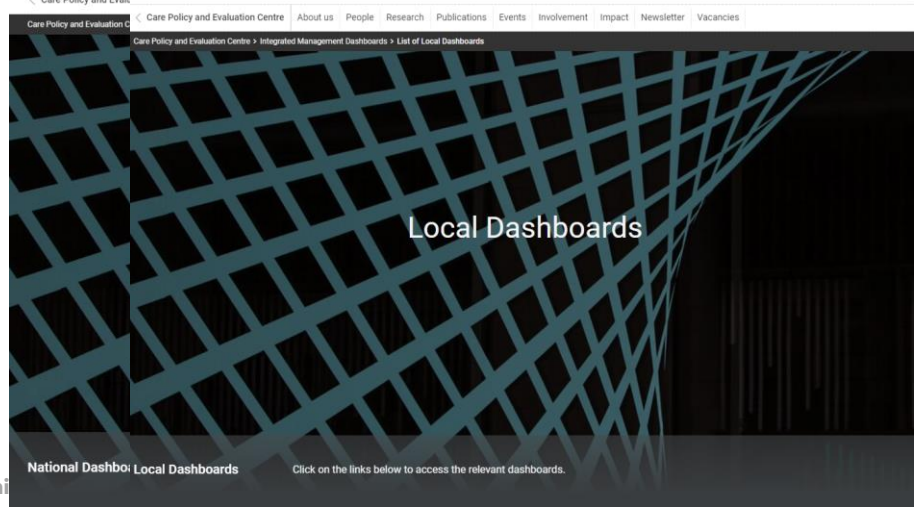
Integrated Management Dashboards

A management tool for national and local stakeholders to monitor progress and play a pivotal role in driving long-term service improvements.

Key Metrics

- Investment and budget utilisation
- People demographics
- Process outcomes (e.g., the flow of people in and out of care, staff composition, workload and more)
- Economic outcomes (for NHS and broader public budgets)
- Health outcomes (Quality-Adjusted Life Years, QALYs)
- Housing outcomes
- Care experiences
- **Preferences for different models of care**

Static dashboards



Dynamic dashboards

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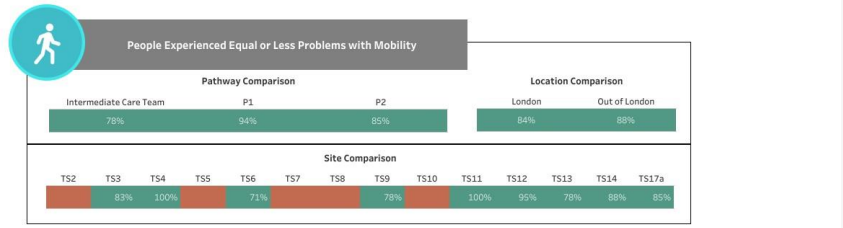

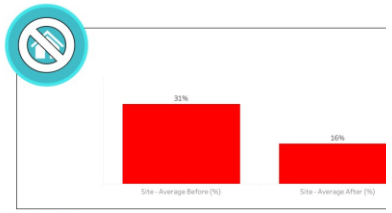

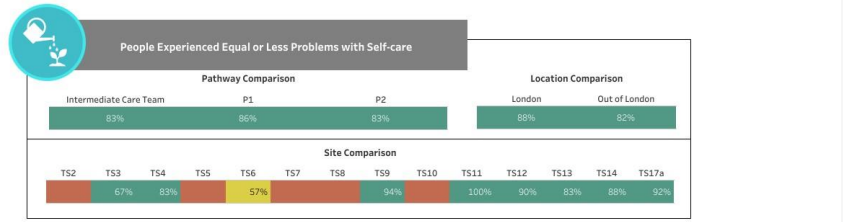

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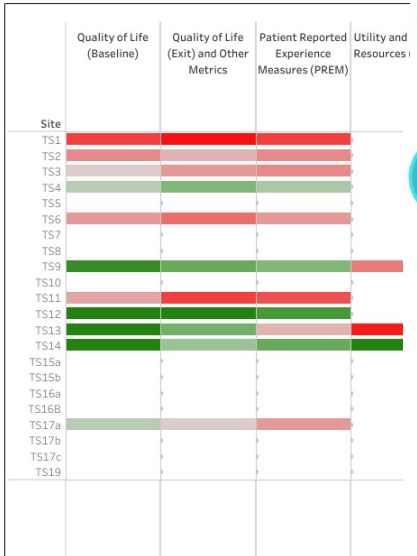
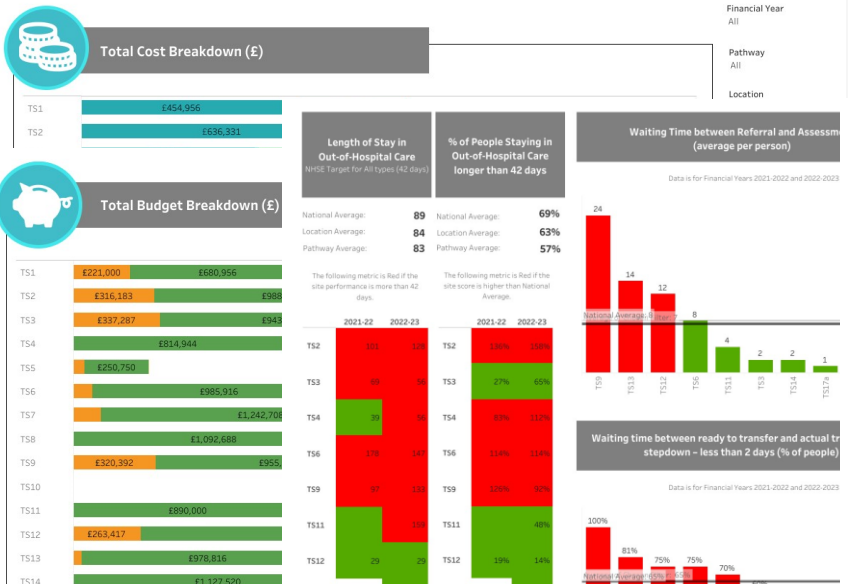
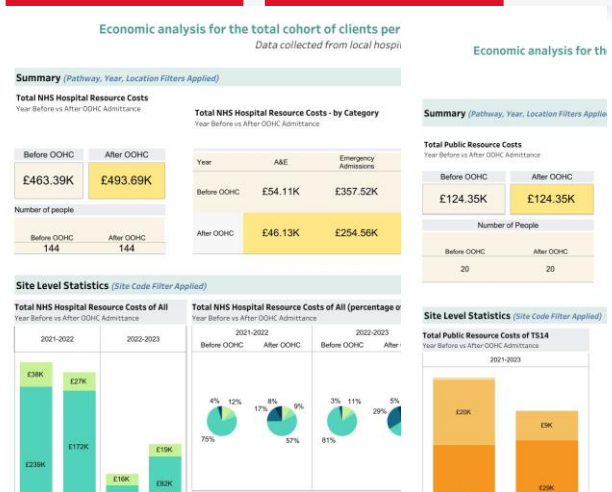




Search Menu

Data Availability Map	**Summary Metrics**	**Investments and Service Delivery Costs**	**People Demographics and Staffing**	**Housing Outcomes**
Data Availability Map View the dashboard	Summary Metrics View the dashboard	Investment and Service Delivery Costs View the dashboard	People Demographics and Staffing View the dashboard	Housing Outcomes View the dashboard
The Flow of People In and Out of Services	**Housing Outcomes**	**Person Reported Experience Measures**	**Health Outcomes**	**Economic Analysis - NHS Perspective**
The Flow Of People in and out of Services View the dashboard	Health Outcomes View the dashboard	Person Reported Experience Measures View the dashboard	Health Outcomes View the dashboard	Economic Analysis NHS Perspective View the dashboard
Economic Analysis - Broader Public Budget Perspective	**People Preferences and Service Uptake Modelling**			



Probability of services uptake (changing one attribute at a time)

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Oxfordshire Out of Hospital Care Model

- 2021 - initial funding from DHSC's Shared Outcomes scheme (15 months)
- 17 test sites across the county – innovative, partnership working
- Aims:
  - Planned, safe discharges from hospital – avoid discharge to street
  - Increase access to services in community – avoid (re)admissions and reduce inequalities
  - Prevent rough sleeping and homelessness
- Project evaluated by King's College London and London School of Economics
- 2022 – further short-term funding secured; model expanded
- 2023 – Two-year funding secured (BCF and ICB)

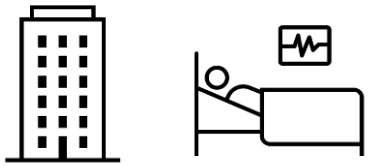
Oxfordshire Out of Hospital Care Team

OOHCTeam@oxford.gov.uk

Preventative Step-up services

- Social Workers
- Clinical Psychologists / Psychiatrist
- Mental Health Practitioner
- Occupational Therapist
- Step Up accommodation

Avoid unnecessary admissions



Acute General or Mental Health Hospital

- Housing Options Officers
- Dual Diagnosis service
- MH Health Support Workers

Person facing homelessness

- Peer assessors
- LEAF

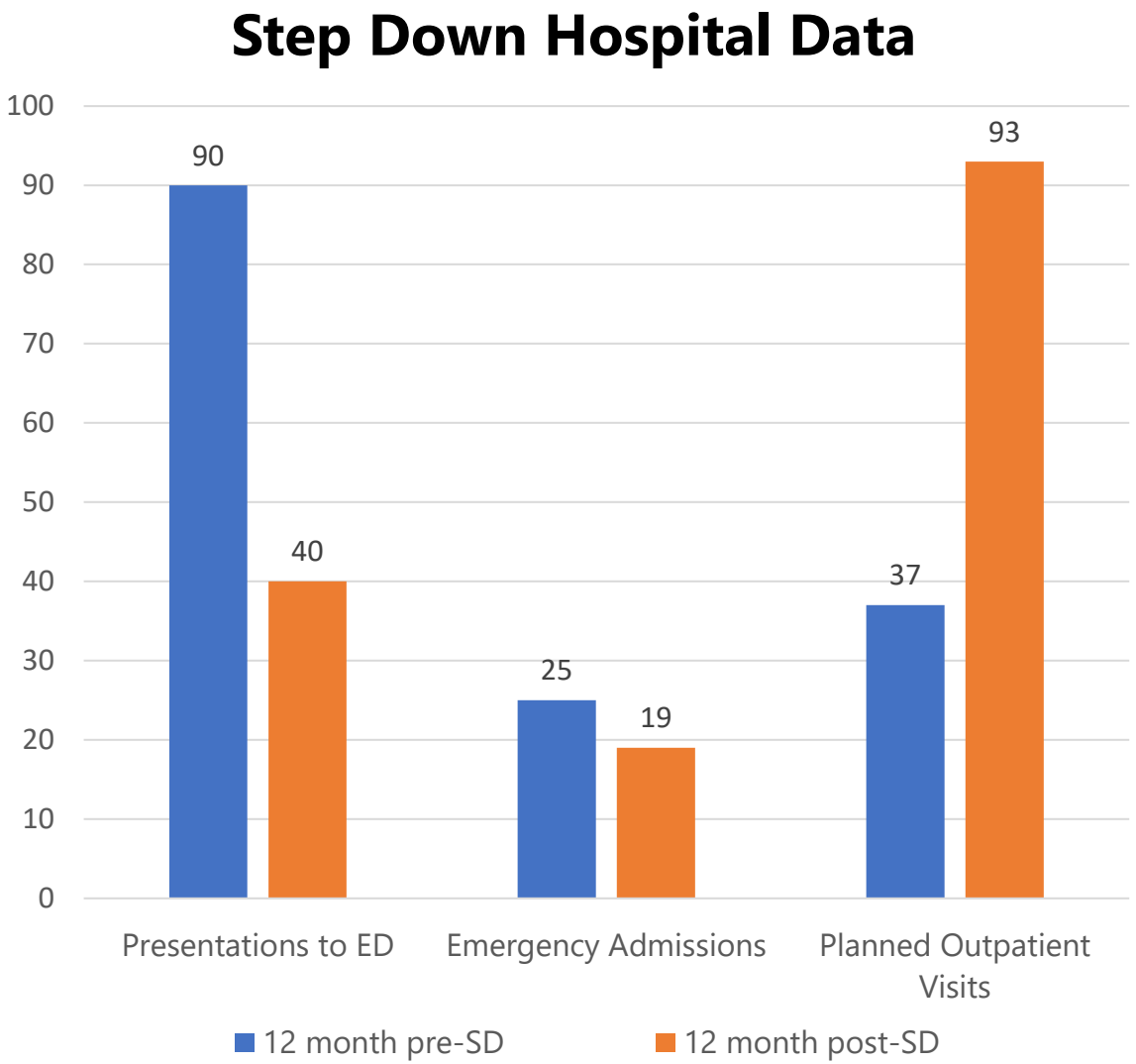
Step-down accommodation

- Up to 6 weeks free of charge
- Input from OOHC team and Primary Care

Ongoing housing

- Transitional support from clinical roles and EMHWs

Key metrics



Performance April 2021 – December 2022

- Over **200 planned discharges** from hospital (50% from Mental Health wards)
- Average length of stay in our Step Down service is **28 days**
- 22% of people in Step Down rough sleeping prior to hospital; only **one person returned to rough sleeping**
- Hospital data
  - 24% reduction in emergency admissions
  - **56% reduction** in presentations to ED
  - 155% increase in Outpatient visits

My Role and experience

Implementing OOHC in Oxfordshire

- Recruitment and team development - cohesion and values
- Connect with key stakeholders - identify need/shape model
- Establish a place in the system – trust and commitment from partners
- Collect data and build evidence base – identify opportunities
- Secure ongoing funding – most projects stopped after 12 months

Collaborating with the evaluation team

- Supportive, responsive, knowledgeable, easy to work with
- Appointed too late to contribute to the initial business case
- Clear and credible data that stood up to scrutiny
- LEAF / EBE – valuable insights, authenticity
- Great support from NHS data team

Use of the data and plans for the future

Data and Evaluation

- Adapted our Step Down service
  - Pre-move in paperwork and move in protocols
  - Consistent information and communication
  - Challenges: House Rules, length of stay (cp to DCE feedback)
- Recruitment – LEAF on interview panel and part of MEAM

What next?

- Longer-term outcomes - LEAF
- Storytelling – qualitative, experience and preference (alongside economic/outcome data)
- Adopt dashboard as management tool
- Use DCE data and dashboard to design model
  - Best scenario of care
  - Predictive service uptake and number of beds required
- Embed in system
  - A way of working (cp to MEAM)
  - Ongoing funding – business as usual

Department of Health & Social Care

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The team:
Michelle Cornes (co-PI) and Va
Michela Tinelli (co-PI), Kyann Z
Joanne Madridejos (**London S**
Jess Harris, Joanne Coombes
Stan Burridge (**Expert Focus**)

Presenters:

Dr Michela Tinelli,
LSE
m.tinelli@lse.ac.uk

Mr Peter Moore,
Oxfordshire
pmoore@oxford.gov.uk

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More about DCEs

More about the dashboards

Webinar, 14th December 2023