

The CLOSER consortium of longitudinal studies

Opportunities and obstacles in harmonising data from diverse sources

Dara O'Neill

CLOSER, UCL Institute of Education



Longitudinal Data & Cross-Study Work

- Longitudinal studies can offer valuable insights into the sequencing of social, psychological and biomedical phenomena across the life course
 - The value can be extended when multiple studies are used in combination

Cross-study use of longitudinal data can

provide new **research**
opportunities

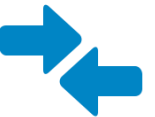
foster interdisciplinary
collaboration

bring with it **hurdles** of
its own

The **FAIR data principles** are key

Harmonisation

- Improving the **comparability of data** across different studies or collection periods within the same study
 - Addresses data interoperability
- Prospective better, but most is **retrospective**
 - The latter helps improve data reusability
- **Different strategies**, of varying complexity
 - From simple rescaling to latent variable identification





Harmonisation: Obstacles

Variation within & between studies

- Different metrics and definitions
- Changing practice/theory over time



Differences across disciplines

- Data processing practices (e.g. missing data)
- Access restrictions



Divergences between harmonisation efforts

- Strategies adopted
- Documentation maintained



CLOSER





Our Core Areas of Work

Harmonisation

Linkage

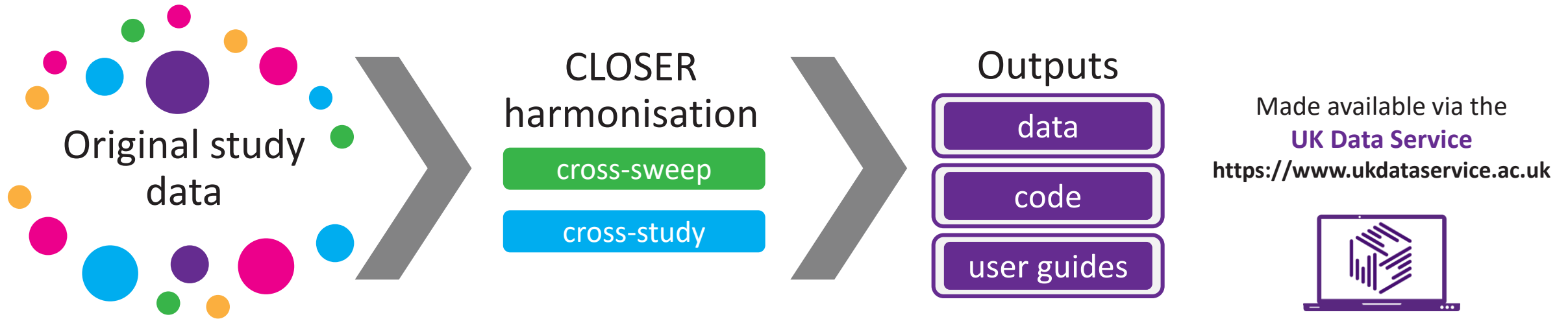
**Data
Discoverability**

**Training &
Capacity
Building**

Impact



CLOSER Harmonisation Work: Making Data Interoperable & Re-usable



Examples

Body size & composition

Socio-economic position

Visual functioning

Childhood environment & mental health

Overcrowding

...with more forthcoming



CLOSER Discovery: Making Metadata Accessible & Data Findable

Search for variables

Enter search
term...



Study

Item type

Life stage

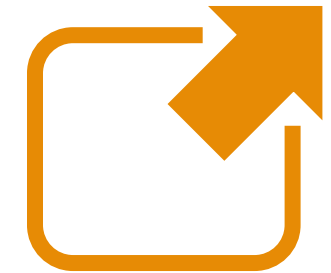
Explore topic areas



Examine available data
and lineage



Create, share, and
export lists



<https://discovery.closer.ac.uk/>

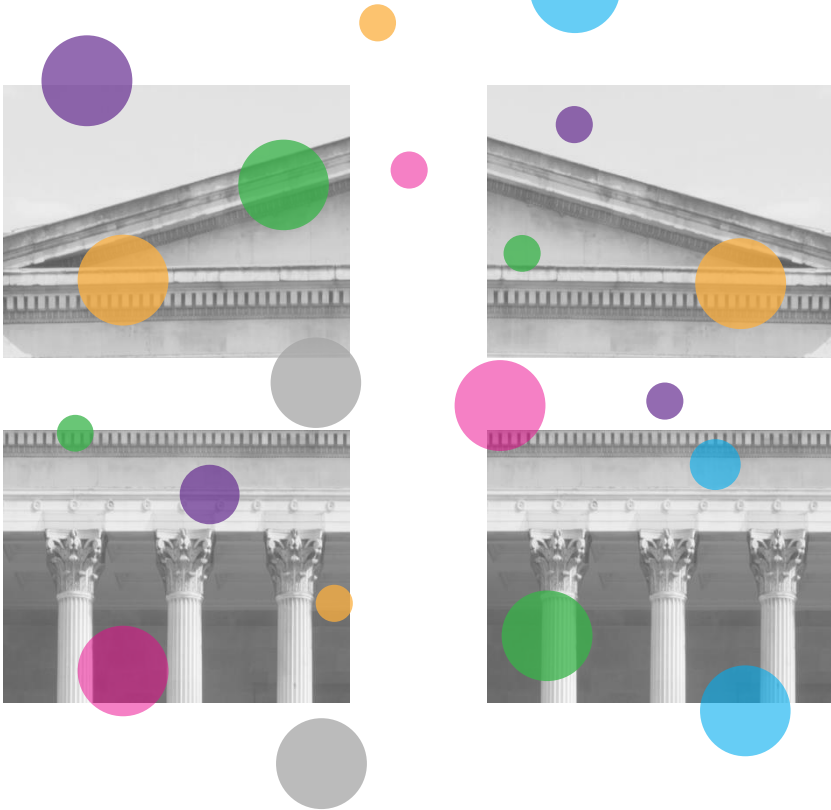


Summary

- **Cross-study** work in social and biomedical sciences offers many benefits
- Data interoperability can be improved through **harmonisation** efforts
 - Also serves to encourage **re-use** of data
 - Data and metadata **discoverability** can help identify scope and feasibility
- Consistent with the FAIR principles, **CLOSER** is facilitating such work through the development and dissemination of **data resources**



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Consortium partners



UK Data Service

