Big Healthcare Data: How the UK is leading the way

Maggie Massam
Head of Business Development
Clinical Practice Research Datalink

December 2014
The world’s best primary care data

- Single payer system – cradle to grave
- GP are the gatekeepers to accessing care
- Data has been collected electronically since 1987
- 100% practices electronic
- Unique healthcare identifier – NHS number
**Additional Clinical**
*Data on height, weight, smoking etc.*

**Clinical records**
*Read code for symptoms and/or diagnosis*

**Consultation data**
*Information from each consultation stored in different record tables*

**Practice data**
*Deprivation score, urban/rural location and NHS region*

**Patient data**
*Age, sex and (subsample only) deprivation score*

**Test records**
*Read code for test type +/- results*

**Referral records**
*Read code for symptoms/diagnosis plus specialty*

**Prescription records**
*Code for prescribed product*
How CPRD maximises this resource for research

1. Clinical Practice

2. Data-Link
NHS Datasets

I ° Care
8500 Practices
8 LRNs

2 ° Care
HES 100%
+Rx

NHS Audits
40 Granularity

PHE
Cancer
BINOCAR

Disease Registries
Local Data

National central Data - ONS
Death
Birth
Demography

Social Care Data

Environ. Air Poll.
Other Data

Consented Clinical Trials
Biosample PROs

Linkage on NHS#
And Or
PC, sex, DOB

Future
Genetic data
Digital path. data

Global Researchers
Healthcare Data and Clinical Trials

Unlocking the potential of NHS Patient Data in Research

Observational & Interventional
Feasibility Protocol Optimisation Recruitment
Targeted approach

List only Patients and Sites that match Inclusion / Exclusion Criteria

From real-live up to date data

Predictable & lower risk approach
Patient Count: 15,816 found

- North East: 128 found
- North West: 3,136 found
- Yorkshire & The Humber: 350 found
- East Midlands: 410 found
- West Midlands: 1,522 found
- East of England: 1,604 found
- South West: 629 found
- South Central: 1,444 found
- London: 1,920 found
- South East Coast: 1,409 found
- Northern Ireland: 1,333 found
- Scotland: 1,744 found
- Wales: 187 found

Actions:
- Recruitment Enquiry
- Patient Visualiser
- Back To Search

Save Search To:
- New Patient Card
- Save
Patient Count: 15,816 found

- North East: 128 found
- North West: 3,136 found
- Yorkshire & The Humber: 350 found
- East Midlands: 410 found
- West Midlands: 1,522 found
- East of England: 1,604 found
- South West: 629 found
- South Central: 1,444 found
- London: 1,920 found
- South East Coast: 1,409 found
- Northern Ireland: 1,333 found
- Scotland: 1,744 found
- Wales: 187 found

Median: 9, Interquartile Range: 46
Before the Trial

• Protocol Planning
• Feasibility
• Recruitment
• Simulation

Clinical Trial

Support provision of acquiring data For Phase 2-4 and Pragmatic Trials

After the Trial

Follow-up with data auto-populated from EHR
New Paradigm
Clinical Practice Research Datalink


