



## Focus on Building Therapeutic Area Laboratories

### Overview

- A Therapeutic Area Laboratory is a partnership between healthcare providers, academia, Monitor Deloitte, and often industry. This partnership is aligned to a shared vision around using Real World Evidence to benefit patients across a discrete health economy, typically within one to three specific therapeutic areas.
- At the core of this partnership is a technological platform to securely link pseudonymised clinical data across care settings, over a 10+ year time period, and across major comorbidities in order to get a clinically detailed non-identifiable dataset.
- This data is regularly updated – both providing the opportunity of developing a ‘war room’ to react to adverse public health issues or to facilitate tracking the benefits of innovation.
- Alliance partners pose service redesign or academic research questions to be published in leading journals and to inform change at a local level.

Figure 1. Developing a linked highly detailed non-identifiable dataset

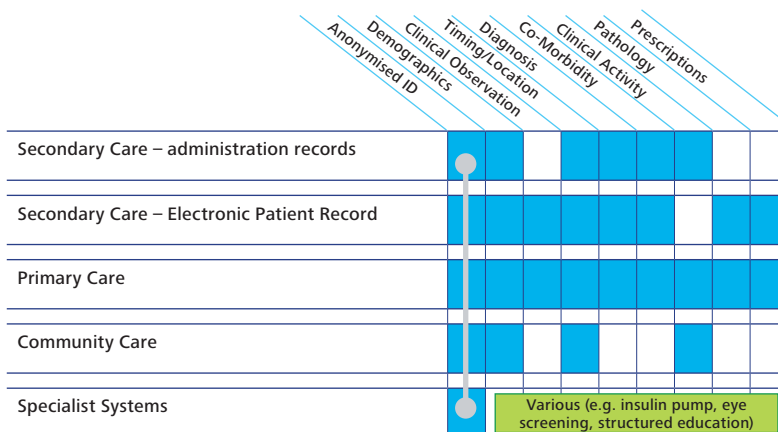
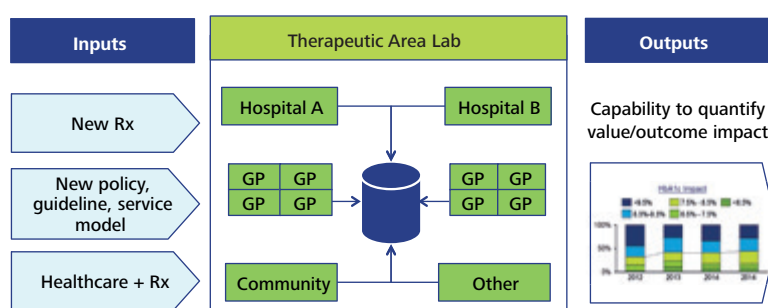


Figure 2. Using a therapeutic area laboratory to quantify the impact of healthcare improvement



### Value delivered

- **Patients and Patient Advocacy Groups:** achieve better outcomes and disease control through tailored interventions and better care coordination across settings.
- **Healthcare Providers/Prescribers:** design services around the needs of patients to support outcome improvement and demonstrate healthcare productivity.
- **Commissioners/Payers:** maximise value for money whilst delivering improved outcomes; build alignment on reimbursement choices.
- **Academia:** build profile through unique research insights.
- **Industry:** develop deep customer relationships and demonstrate commitment to patient outcomes.

### Key workstreams and capabilities

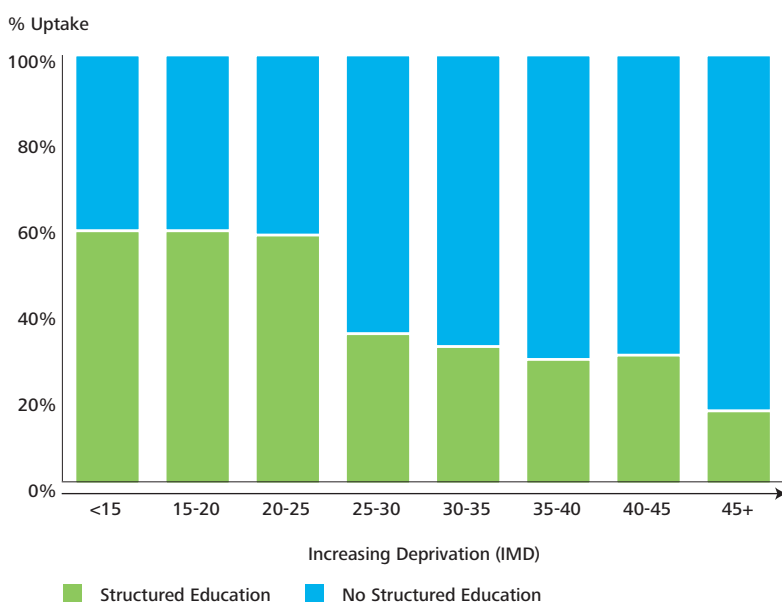
- **Partnership Development** – develop an organisational/governance structure to ensure patient interest remains paramount; manage compliance; resolve risks and issues; prioritise research; and manage stakeholders.
- **Information Governance** – ensure adherence to all patient privacy and ethics regulations and ensure issues of patient consent and data anonymisation are resolved.
- **Communication** – ensure patients and physicians are informed in an extensive and fair manner and have an opportunity to seek clarification.
- **Technology** – build a technological platform to securely extract, link, restructure and analyse data.
- **Research** – use leading statistical techniques to drive insight whilst managing compliance issues.
- **Strategy and Change** – use data to identify and quantify opportunities for service redesign.

**Figure 3. Demonstrating the drivers of survival in Type 1 Diabetes, adapted from Thomas et al (2013)**

	Alive	Deceased	P value
Age (years) <i>mean</i>	41.2	50.9	<0.001
Diabetes Duration (years) <i>mean</i>	16.1	14.8	0.8
Mean HbA1c 2002-04	8.2	9.1	<0.001
Mean deprivation score (IMD)	23.6	32.3	<0.001

In a three step regression analysis, baseline HbA1c, age and IMD score were independent predictors of mortality.

**Figure 4. Demonstrating the impact of deprivation upon uptake of structured education for patients with Type 1 Diabetes, adapted from Hopkins et al (2013)**



References: Hopkins, D., et al. (2013) Factors Influencing Uptake of Structured Education for Type 1 Diabetes and Long-Term Outcomes in an Urban Clinic Population. *Diabetes* 62 (Supplement 1) A173; Thomas, S., et al. (2013) Age, glycemic control and social deprivation independently predict 10-year mortality in a UK type 1 diabetes cohort. *Diabetes* 62 (Supplement 1) A420

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**Monitor Deloitte credentials**

- **EU: AHSC + Payor Groups + Pharma.** Identified opportunities to improve diabetes care across an urban population. Initiatives included identifying opportunities for tailored cohort-specific interventions; improving care coordination and increasing structural efficiency. Key project insights published in *Diabetes*.
- **EU: Patient Charity + National Research Group for Cancer care.** Risk-stratified breast and lung cancer patient population in major urban health economy to better understand variation in clinical practice and patient survivorship outcomes. Insight used to inform cross care-setting pathway redesign programmes of work.
- **US: Integrated Healthcare System.** Collaboration that resulted in the development of new analytical techniques including OutcomesMiner and PopulationMiner, big data software applications that were designed to help healthcare providers, pharmaceutical firms, and device makers understand how a wide range of factors might contribute to the outcomes of their patients.