

## York

### 1) York

- Jonathan Bradshaw. Trustee. Charitable trust. Academic – Policy and practice
- Bob Slavin +his team. Help with work in Ireland
- David + Carde Torgersson Editorial & special issues & Journal of children's services on randomised control trials (RCT's)..
- Martin Bland, Randomisation of Together for all project in Northern Ireland
- Church of Later day randomised controlled trials-heretical, Not in Church, Scary Amount of what I will say = unproven Edward Tufte.

### 2) Three propositions. Two underway – one in planning

- \$200m to improve well-being of children over 5 years on the Island of Ireland.
- £100m to improve the health and development of children in local authority Birmingham, with expected return of £200m (= reduction in expenditure and unproductive services) over 5 years.
- \$500m-\$1bn in US, 10 year period  
(reflect on what you would advise)

### 3) Context

- E.g. Birmingham
- 250,000 children = all= all agencies
- People working with children 10,30,60,100k
- Expenditure £1.3bn
- Well-being Trends
- Well-being Conduct Disorder

### 2) Dartington & RCT's

- R → Oc (Demonstrably)
- Mechanism is development of Children's services (Health, Education, Social Care, Police, Youth Justice services)
- Academics, include good scientists
- I do not descried myself as the best scientist in the world, but I revere good scientists.
- I encourage my staff to aspire to the highest scientific standards, and see that as critical to our contribution to development of children's services.
- I am not a member of the RCT church. Adoption
- I don't much like the phrase RCT is gold standard.

Evaluate consumer stratification RCT x

Evaluate implementation RCT x

But, if you want to understand the impact of intervention on child outcomes, I am convinced RCT is the optimal method.

Plus- well done; benefits in terms of understanding **WHY** intervention works, which helps to understand aspect of aetiology of children's health and development.

(disappointing take up)

- So I am interested in RCT's for a purpose.

Also interested in epidemiology, systematic reviews, type II analysis for their purpose.

### 5) Back to how to spend \$200 or £1m or \$1/2bn.

- Slide I showed that year for Ireland. (21) SLIDE.
- Prevention Action = dissemination. Daily, Quarterly. Invite readership. York conference
- Ireland target scales back. 20 experiments
  - Some will fail due to insufficient support.
  - Some. E.g. Together for all flourishing. Tallgt

### Birmingham

- Similar model / different context/ learned for Ireland.
  - 1) Watching with all agencies. Stable context than Philanthropy and Government
  - 2) Single jurisdiction
  - 3) Cash benefit + RCT = invest to save
    - Benefits in terms of sustained focus 7/12 v 12/12 of Ireland.
  - 4) 12 programs
    - Public health → 60k staff
    - Parenting → Triple-P
    - Sure Start + Incredible Years
    - Paths = 200 schools of Together for all
    - NFP
    - etc
    - Mostly evaluated by experiment.
  - 5) Knowledge Transfer, Embed or approach within city infrastructure.
    - Epidemiology = to help program board decide priorities (+ monitor trends)
    - Systematic reviews = to select the best models
    - Aos economic model = to build a “investment” portfolio
    - Service design methods = to encourage good implementation + ownership
    - Experimental evaluation
    - Dissemination
    - QA = Fidelity of programs that go to scale
    - In-house collaboration with ½ universities
  - 6) Experiments → Replication evaluations
    - RCT ✓
    - Power ✓
    - variables reduced to those in logic model

### 6) Service design / program design/ operating systems

- We think/we do not know- that introduction of proven models or innovate at scale in contexts like Ireland- Birmingham –U.S. Requires method = SD/PD/OS- Common Language is one of several methods
  - Features of Common Language – dual purpose to go through approach in detail
  - Community engagement + prevention science. a) you can't tell people what to do
    - B) most of what people decide to do by themselves lacks logic + evidence (is well meaning)
- Training – Outcome. Public Health. Prevention. Evidence. (RCT included)

RC'

Pro

- Masters – Prevention Specialists/Co-coordinators 50 in Birmingham  
 Community engagement = high levels of engagement. Talking to people.  
 Systematically “context free” very high standards of logic + evidence  
 SG. 25, 9 days // school principles. Group never met. Monthly.  
 Evidence = Epidemiology. Together for all 2.5k, Birmingham 10k Atlanta = what works  
 = Evaluation. Context = RCT/ Experiment unless good.....  
 Reason = we need a precise estimate of impact on children in areas in which  
 we work
- Outputs = strategy, service design, manual, evaluation strategy

### Birmingham

#### 7) Method not set up to promote RCT's, but it does we think! We do not know

- Method produces logical propositions for evaluation BrianGym emigration X10 in small number of schools.
  - Predicts ES for epidemiology + what works evidence
  - Evaluated programs are delivered to correct target group. Crosse reference ISSP
  - Ownership. People want to know if it works
    - Every proposal is a hypothesis to be tested
    - Prevention specialists – Incredible years
    - Ethics. First do no harm
    - Vocabulary. RCT. effect size. Minimization.
- Language we use to obscure what  
do, we give to community

#### 8) Challenge

- Effect size versus ecological validity  
 Together for all. Community = behaviour + social and emotional regulation of all children
    - = Schools
    - =14 schools
    - = RCT/ Minimization issues = Martian Bland/  
David Torgerson
    - = Power = Bob Slvain/ Mark Dynarski
    - Not equal to Birmingham but effect size versus  
cost. Budget
  - When to say RCT not viable, in context of showing arguments for RCT.
  - Practical issues
    - =Rewards for control group
    - =How to randomly allocate
    - =Wild Cards
- All this is very high maintenance (wish you could tell them what to do)
- Replication studies versus full scale evaluations  
 Ireland = \$20m on experiments

Birmingham = Broader evaluation function/ can we be more efficient about experiments.

- Proven models = Replication  
= Experiment  
= Power  
= Measures  
Less data = variables in Logic Model
- Outcome  
Risks  
Interventions to interrupt  
Not equal to all covariates

Sensible but scary

Governance

Expert advisory committee

### 9) Weakness of model

- We did not know if method works US=RCT= Type II. Contribution over & above programs introduced.
    - Other type II issues – Prevention scientists? Training, Fidelity – Coaches  
- Manuals  
- How much Fidelity?  
Fidelity Slide
  - Dealing with ‘negative’ data  
40 experiments in Ireland + Birmingham  
10 in Ireland to fail due to lack of sustained support.  
30, ½ positive, ½ negative. Negative results just as important as positive  
What is Negative? 0.05 business in the community. Effect size of 0.2
  - Academics are not fully integrated.  
Academics are major obstacle towards experiments
    - 1) Most academics are not in the church of RCT
    - 2) Many academics make a living by telling people what works without RCT design. Threaten livelihood.
    - 3) Academics in church sometimes sin  
Ireland  
Birmingham. Bees around the “honey pot”  
FEC
    - 4) Healthy Disagreement  
Martian Bland Versus others Is it an RCT?  
Bob Slvain Versus Mark Dynarski Martian Bland Do we have enough power?
- Conversation looks to non-academics like (“These people don’t know how to do this”)

## Government

- Tells people what to do
- E.g. SEAL
- Fidelity

## **What can we say**

- 20 to 30 experiments underway that would not sensibly have been underway
- In Ireland prior to our involvement 2 RCT in children's services including education
- In Birmingham none commissioned by Health, Education, Social care, Police & Youth Justice services.
- Change culture. Discussion about experiments in Ireland
  - Birmingham evidence is integral to planning
  - Internal capacity very promising
- No idea whether a) what we are doing is adding anything to children's health and development over and above straight implementation of programs.