Matching methods to evidence for evaluating the outcomes of prevention in social care

Jose-Luis Fernandez
Joanna Marczak
Gerald Wistow
Aims of the presentation

- what do we mean by prevention?
- what are the challenges of assessing prevention?
- prevention and the next few years...

Its is more important than ever to use resources cost-effectively

Prevention attractive because it promises improved wellbeing, health and quality of life at the same time as reduced need for services and lower costs

Will prevention save the day?
Prevention “outcomes”

Maximising independence

Health state / Quality of Life A

Preventative intervention

Health state / Quality of Life B

Increased use of Health/social care
Prevention “outcomes”

- The concept of prevention can be muddled (e.g. cost savings vs. improved quality of life)
- Might require changes in other services (e.g. reductions in acute activity)
- Is potentially relevant to all social care activity
- Is as much about how services are delivered as which services are provided
- The key is to understand *what works for whom*, and *how*
Challenges of evaluating prevention in social care
Heterogeneity of social care needs

• Physical health / disability
  - Problems with Activity of Daily Living (ADLs)
    - Instrumental activities of daily living (housework, cooking...)
    - Core personal activities of daily living (washing, feeding...)
  - Social construction of dependency

• Mental health
  - Cognitive impairment
  - Depression

• Informal support networks
  - Amount of support
  - Nature of the interrelationship
  - Informal carers as resources and co-clients

• Other environmental factors
  - Housing
  - Safety

• Personal traits
  - Self assurance
  - Aggressiveness
Services and Risk Factors Contributions to Days Living at Home

Source: Davies and Fernandez (2000)
Social care outcomes

• Outcomes are *complex*
  • Outcomes usually need to be multi-dimensional
  • Each dimension can be difficult to assess

• Sometimes the only change to be expected is *deterioration*

• There are multiple and sometimes *competing* perspectives on outcomes
  • Maximising independence vs. minimising risk of harm
  • Improving the wellbeing of carers vs. service users

• Importance of process outcomes
  • Empowerment
  • Choice
Social care linked to a complex network of support services

Do we have the right incentives in the system?
Long-term effects and costs

- Social care problems are often long-term
- Interventions are also often long-term
- The outcome effects of interventions are often slow to materialise
- And so too are some of the costs
The prevention evaluation challenge

- **Final outcomes**
- **Quality of life**

- **Service use**
  - Social care
  - Health care
  - Criminal justice
  - Other services

**Evaluating upstream prevention: particularly challenging**
Generating/using evidence about prevention

• Matching evaluation strategies to policy
  ➢ Building business case before a new intervention
  ➢ Evaluation of a new scheme being implemented
  ➢ Piloting new ideas
  ➢ Evaluation of existing services. Analysis at the margin.

• The methods and data requirements will depend on the nature of the intervention/aims of the evaluation

• Overall, the key is to identify the contribution of services to outcomes
Identifying the effect of the intervention: controlling for needs...

• **Experimental** set-ups
  Random allocation of intervention to intervention group (at individual or group level - e.g. geographical clustering)

• **Difference in difference** set-ups
  Control, Intervention, before and after
  Staged implementation (e.g. by area) with pre and post data available
  Disentangling general changes through time from effect of scheme

• **Matching** strategies
  Using alternative sources of data to define comparator (e.g. from other areas; from national surveys)

• **Regression methods**
  Analysis “other things equal”
  More powerful but more complex to apply and more data “hungry”
  Can be used with some of the strategies above
  Can identify strategies for improving targeting of resources
Randomisation process: e.g. IBSEN study

IB → Randomisation
   50% | 50%
   ↓   ↓
Consent → Comparison
   ↓   ↓
Database completion → Consent
   - Support needs
   - Support plan
   → Database completion
   - Support needs
   - Support plan
   → 956 with 6 month interview
The cost-effectiveness plane

- **Policy judgement** dominates (more expensive and less effective)
- **Intervention** dominates (cheaper and more effective)
- **Policy judgement** Intervention more effective but more expensive
- **Intervention** cheaper but less effective
Home Care and Day Care Effect on Days Living at Home

Source: Davies and Fernandez (2000)

- **Home care, user cannot do heavy housework**: 93% of recipients
- **Day care mild/sev cog imp**: 43.1% of recipients
- **Day care others**: 56.9% of recipients
What if the data is not available: building a business case

Modelling exercise based on
Expert opinion (but health warning!)
Look for external evidence
  *Literature*
  *Issues of transferability*
Sensitivity analysis
12-month pathway based on 1,000 people with unmet equipment needs
Assessing local capacity for evaluating prevention in social care

• Understanding prevention effects is key (e.g. in the context of Better Care Fund)

• Many local authorities collecting relevant individual level data
   Needs; Service use; Outcomes (destinational and/or final); Linked health care use

• SSCR project assessing/developing local strategies for assessing prevention effects
   Local understandings of “prevention”
   Current evaluation efforts
   Availability of evidence needed for ongoing assessment of prevention effects
   Develop an approach for use of different types evidence to evaluate prevention