



# Understanding the consequences of prevention policies

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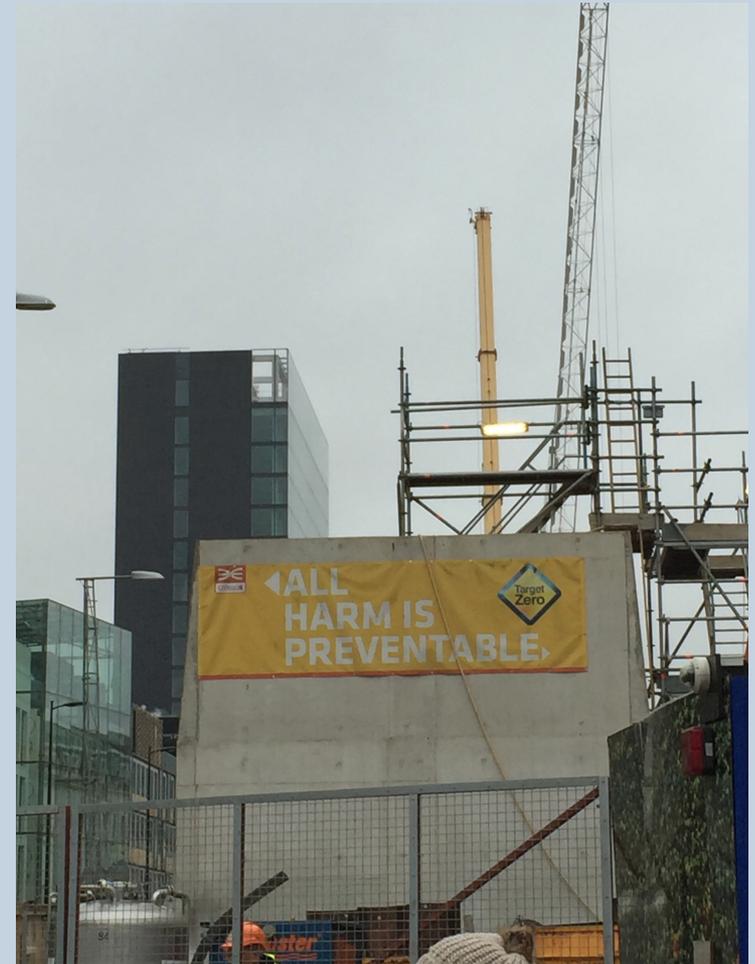
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# The prevention agenda

- Addressing upstream social problems “before they occur” (Cairney and St Denny, 2016)
- Policy priority in order to
  - Reduce socioeconomic inequalities
  - Cost-effective approach to social problems
  - Move focus to determinants of health and away from health services
  - Badged as an effective way of managing austerity (Cairney 2016)



# Assumptions about prevention policies

- Policies and interventions have a linear effect and are unaffected by changing populations and complexities
- Policies and programmes have single and simple aims...
- ....Which are clear to all
- ‘Success’ is easy to define and measure



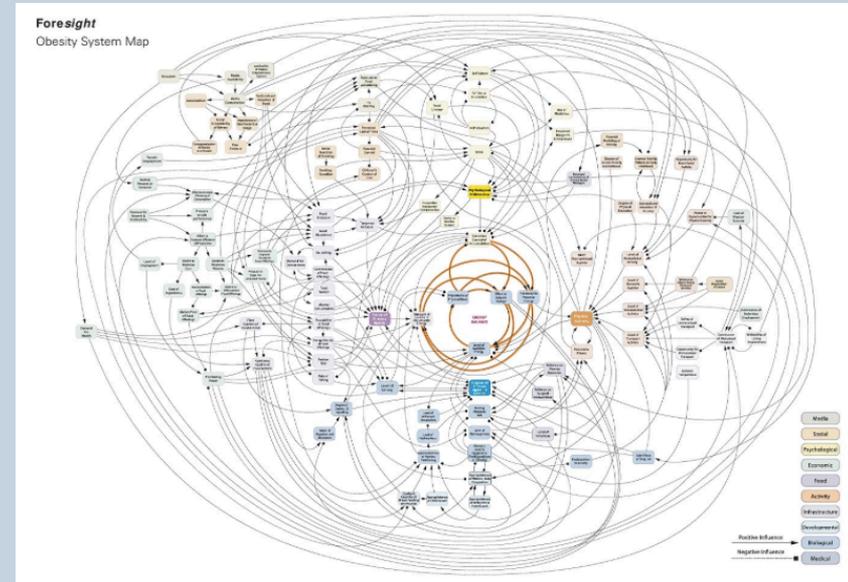
<https://www.cdc.gov/policy/hiap/index.html>

# Doing prevention is challenging

- Wicked social problems (Rittel and Weber 1973), which are ambiguous problems with unclear solutions
- Policy makers have limited choices available to them, but must do something (Zahariadis 2007)
- Need to make value-laden choices about redistribution, which may not show benefits for long time (if at all) so politically risky (Hunter 2003)

# Demonstrating prevention – even harder?

- Unknowable effect – prevention effects harder to attribute than positive social change?
- Solutions may have unclear effects on complex social systems
- Need for ‘models’ unifying theories of risk, resilience, behaviour change, technological change, systems (Smith et al 2004)
  - i.e. extremely complex and challenging proposition

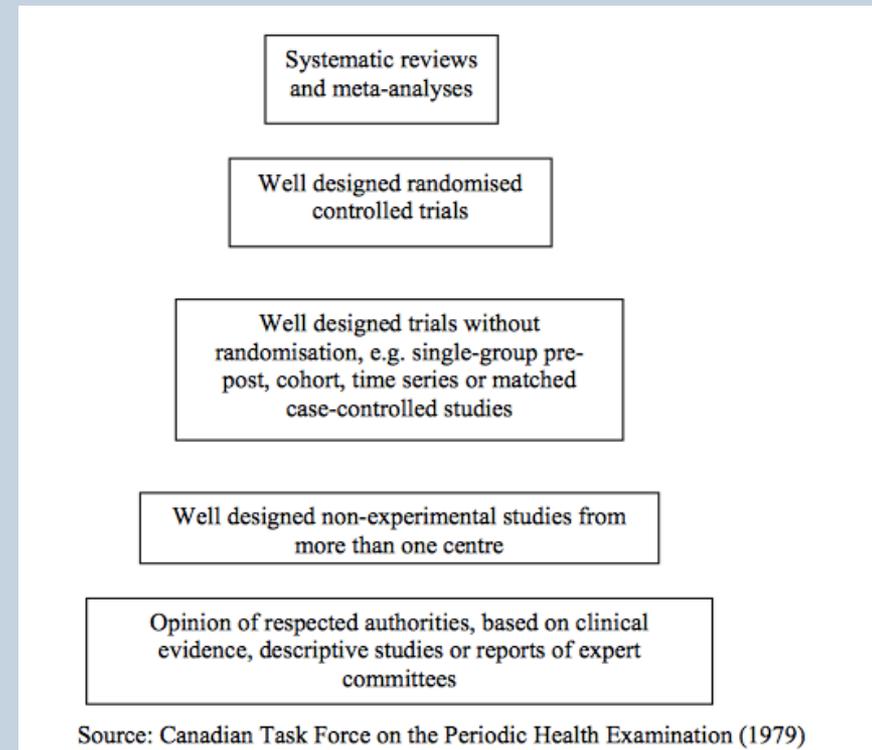


[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/296290/obesity-map-full-hi-res.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296290/obesity-map-full-hi-res.pdf)

# 'Quality' in prevention implementation and research is

= policies and programmes do what they say, or are designed to do

= research demonstrates this through robust (quantitative), peer-reviewed research which shows the desired (pre-specified) impact



Boaz & Ashby 2003

# Markers of (research) quality

## Quality Criteria for Research

- Lincoln and Gull Transferrability/
- Maxwell's Tax Theoretical V

## 4. Contributive Good Quality Research

- provides new insight into old issues
- extends findings of old research
- present new issues with research
- gives fresh perspective on old issues

Block V	Item	Assessed by group	Score
TITLE	1	Identify the report as a systematic review, meta-analysis, or both	1
	2	Provide a structured summary including, as appropriate, background, objectives, data sources, study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; conclusions; and implications of key findings; systematic review registration number	4
ABSTRACT	3	Describe the rationale for the review in the context of what is already known	1
	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparators, outcomes, and study design (PICOS)	4
INTRODUCTION	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number	N/A
	6	Specify study measures (e.g., PICOS), length of follow-up and report characteristics (e.g., years since publication), language, publication status used as criteria for eligibility, giving rationale	5
METHODS	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and use of search	5-6
	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated	6
Search	9	State the process for selecting studies (e.g., screening, eligibility, included in database) and any exclusions (e.g., duplicates, screened based on) and any exclusions	6
	10	Describe measures to minimise selection bias (e.g., PICOS, funding sources) and any exclusions	6
Data collection process	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any exclusions	6
	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether data were used at the study or outcome level) and how this information is to be used in any data synthesis	N/A
Data items	13	Describe methods used for summarising data (e.g., risk ratio, difference in means)	6
	14	State the principal summary measures (e.g., risk ratio, difference in means)	6
Summary measures	15	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I <sup>2</sup> ) for each meta-analysis	6-7
	16	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, consistency, reporting bias)	6-7
Risk of bias across studies	17	Describe measures of publication bias (e.g., sensitivity or subgroup analysis, meta-regression, if conducted) and any assessment of risk of bias across studies (see item 15)	7-11
	18	Describe measures of reporting bias (e.g., sensitivity or subgroup analysis, meta-regression, if conducted) and any assessment of risk of bias across studies (see item 15)	7-11
RESULTS	19	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram	6-7
	20	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up time) and provide the citation	(Table 1-1)
Study characteristics	21	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12)	7-11
	22	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12)	(Table 1-1)
Risk of bias within studies	23	For all outcomes considered (benefits or harms), present, for each study, (a) simple summary data for each information group (a) effect estimates and confidence intervals, ideally with a forest plot	N/A
	24	Present main results of each meta-analysis done, including confidence intervals and measures of consistency	(Table 1-1)
Synthesis of results	25	Present results of any assessment of risk of bias across studies (see item 15)	11-16
	26	Present results of any assessment of risk of bias across studies (see item 15)	11-16
Risk of bias across studies	27	Give results of additional analyses, if done (e.g., sensitivity or subgroup analysis, meta-regression) (see item 16)	11-16
	28	Give results of additional analyses, if done (e.g., sensitivity or subgroup analysis, meta-regression) (see item 16)	11-16
DISCUSSION	29	Summarise the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers)	16
	30	Discuss limitations at study and outcome level (e.g., risk of bias), and at review level (e.g., incomplete reporting bias)	16
CONCLUSIONS	31	Provide a general interpretation of the results in the context of other evidence, and implications for future research	16
	32	Provide a general interpretation of the results in the context of other evidence, and implications for future research	16
FUNDING	33	Describe sources of funding for the systematic review and other support (e.g., supply of data) role of funding sources	2
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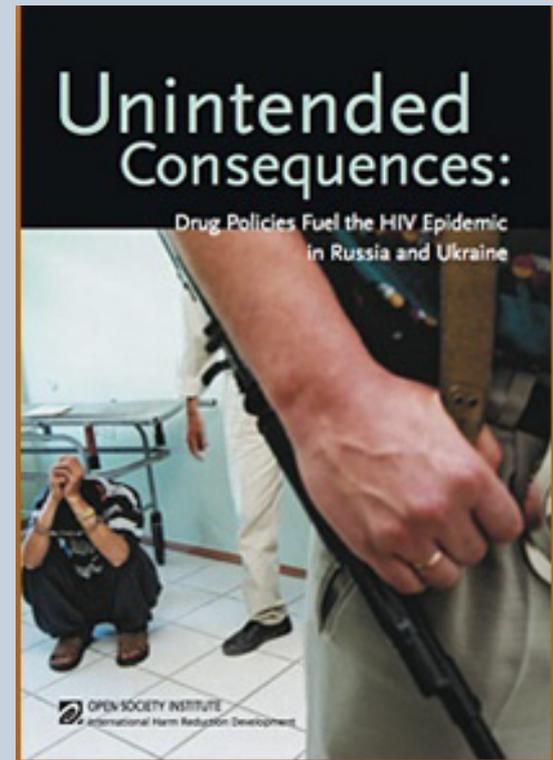
- Reliability, replicability, validity (Bryman 2001)
- Acceptability (Ryan 2001)
- Thoroughness, generalisability, transferability, reasonableness (Harden 2011, Straus and Corbin 1998)
- Clear, reflexive, systematically reported, grounded in data (Popay 2001, Medical Sociology Group 1996)
- Relevant, contributes to theory, coordinated with current research (Tooley and Darby 1996)
- Fit for purpose....?

# Quality in prevention

1. Do prevention programmes / policies do what they are intended to do?
2. Can we tell why prevention programmes / policies do or do not have the intended effect?

# 1. Do prevention programmes / policies do what they are intended to do?

- Unintended effects (where identified/sought) are not uncommon
- Bonell (2015) found increased teen pregnancy in intervention arm of prevention RCT
- Smoking ban intended to reduce passive smoking, but led to huge decrease in heart attacks and strokes immediately



<https://www.opensocietyfoundations.org/>

# Example: Alcohol policy in NT, Australia



Eric Lobbecke, for The Australian 2012

- Indigenous communities in NT, Australia, suffer disproportionality from effects of alcohol misuse
- Community, state and Commonwealth prohibition policies have been implemented since early 2000s

<http://www.cis.org.au/app/uploads/2015/07/pm116.pdf>

Intended effect: Tighter control of alcohol access would reduce violence, problem drinking and alcohol abuse

# Example: Alcohol policy in NT, Australia

- Actual effect: Increased illegal alcohol production, criminalisation of alcohol users and sellers, appearance of 'drinking camps', further negative stereotypes of indigenous peoples
- In addition:

- In Palmerston, wholesale alcohol consumption increased by 4% between 2008 and 2009, while violent crime in the 12 months to July 2010 increased by 25%.
- In Alice Springs, between 2008 and 2009, wholesale alcohol consumption increased by 9%, while violent crime in the 12 months to July 2010 increased by 25%.

<http://www.cis.org.au/app/uploads/2015/07/pm116.pdf>

- Poor theory? Poor implementation?

# Example: Troubled families

- Commentators described policy as failure

“despite persistent claims by politicians that it had “turned around” the lives of tens of thousands of families and saved over a billion pounds.”

- Selection of outcomes / measures / indicators.... inevitably proxies
- Process of involvement changed local practice and integration of services, and increase in staff capacity
- Identification of best practice

## More than £1bn for troubled families 'has had little impact'

Study of flagship social policy suggests small number of positive or negative results in tackling addiction and truancy



📷 The initiative was designed to turn around the lives of 120,000 of the most 'troubled' families in England. Photograph: Alamy

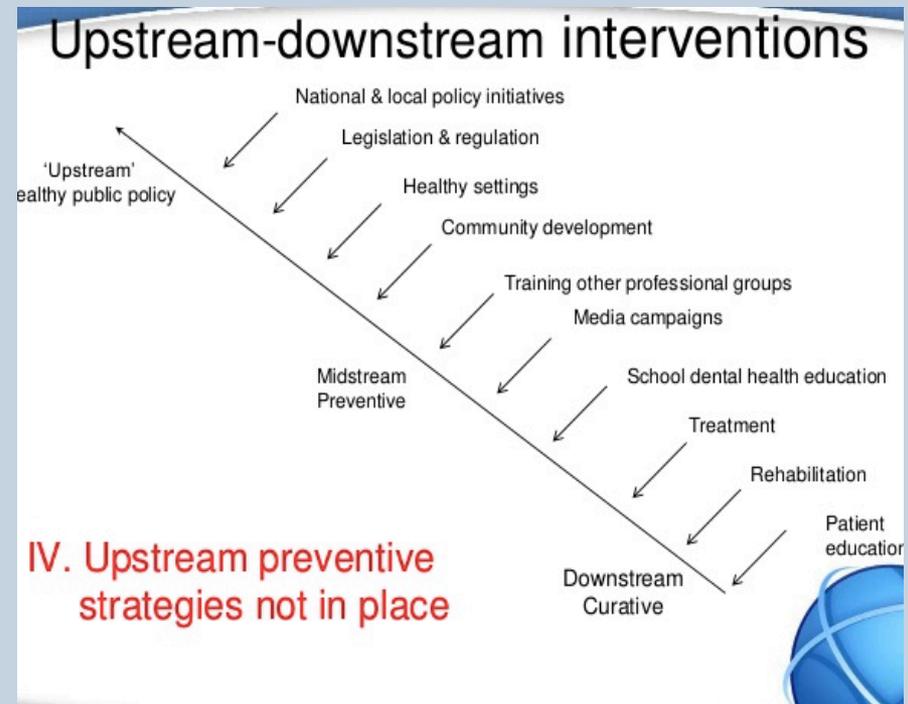
The government's flagship social policy, announced after the 2011 riots and intended to correct the anti-social behaviour of “troubled families”, has failed to achieve any significant impact, an official evaluation has found.

# 1. Do prevention programmes / policies do what they are intended to do?

Multiple causes of unintended consequences	Example
Poor design, or unclear policy goals	Drug-driving campaigns, Scared Straight
Poor implementation	Parental leave, universal benefits
Wrong, or no theory	Ideologically driven policy e.g. Scared Straight
Not understanding context of population	Child benefit to mother
Lack of evidence	Brexit? Same arguments made on both sides
Accepted tradeoffs	Cycling to School programmes (increased A&E visits)
Caused by evaluation technique, selection of outcomes	Sure Start, Troubled Families

## 2. Can we tell why prevention programmes / policies do or do not have the intended effect?

- Exploring UCs shows we need to think about evaluation methods
- Measure outcomes we can (or are allowed to), which affects questions we ask
- Evaluation itself creates appearance of unintended effects – but not how policy works
- Politics / political environment can dictate methods used... (RCT not qualitative)



<http://www.slideshare.net/TutyNingsih/periodontal-health-through-public-health-approaches>

# Evaluating effects of prevention policies

- Done in order to measure scale and scope of impact, value for money, inform future planning, ensure accountability
- Use mixed methods, ideally experimental, to address confounding, bias, validity etc. (ICAP 2010)
- Methodological rigour (the RCT) important...
- Yet, considering unintended effects shows us that it is not always possible to specify in advance what outcomes will change....
- And evaluations can often miss important changes in context, during process, or outside of main timeframe

# Assessing policy success

1. Form of policy success	Which form or forms of success is/are being assessed? Process? Programmatic? Political?
2. Timeframe	What time period(s) is/are being assessed? Short-term? Medium-term? Long-term?
3. Interests	In relation to whose interests is success being assessed, for example, target group? stakeholders? institution? interest group? individual? collective?
4. Reference points	What is the standard by which success is to be judged? Compared to intentions? Compared to policy domain criteria, for example, efficiency and effectiveness? Compared to the past? Compared to ethical or moral principles? Compared to another jurisdiction?
5. Information	Is there sufficient and credible information to assess the extent of success?
6. Policy isolation	With what degree of certainty and credibility it is possible to isolate and assess the impact of a policy from other factors such as other policies or media influences?
7. Conflict and ambiguity	<p>What significance should be given to conflicts and ambiguities, and how should they be weighted in the overall judgement of success? E.g.</p> <ul style="list-style-type: none"> <li>–process vs. programmatic vs. political success</li> <li>–short-term vs. long-term</li> <li>–availability of information vs. lack of information</li> <li>–certainty in isolating the ‘policy effect’ vs. uncertainty in being able to do so</li> <li>–unintended consequences vs. actual or intended consequences</li> <li>–foreseeable shocks vs. unforeseeable shocks</li> </ul>

Marsh & McConnell 2010

# Factors to include in evaluations

**Table 2.** Quantitative and qualitative factors in decision making

Factor	Specific questions
Size of the problem	Is it important? What is the public health burden?
Problem preventability	What is the efficacy? Can it work at least in ideal circumstances? What do we know about the biological plausibility. Is it logical (theory-based)?
Intervention effectiveness	What is the effectiveness? Does it work in real-world settings? Would it work in the settings being considered (is it generalizable)? How much less effective would it be compared with ideal settings? Is there better evidence for alternative interventions?
Benefits and harms	What are all the consequences of the intervention? What are the trade-offs?
Intervention cost	Is it affordable?
Comparison of benefits and costs	What is the value? How does it compare to other alternatives?
Incremental gain	What are the additional cost and benefits (value) compared to what is already being done (if anything)?
Feasibility	Are adequate time and money available?
Acceptability	Is it consistent with community priorities, culture, values, the political situation?
Appropriateness	Is it likely to work in this specific setting? Are there ways to better understand the context for intervention in various populations?
Equitability	Does it distribute resources fairly?
Sustainability	Are resources and incentives likely to support conditions to maintain the intervention?

Anderson, et al 2005. *American journal of preventive medicine*, 28(5), pp.226-230.

# What might quality evaluation look like?

- Bonell et al describe a process to formulate evaluations of harmful effects
  - Scrutinising the assumptions underpinning the theory for the intervention's (positive) effects
  - Identifying inputs to interventions, processes and mechanisms by which these components are meant to lead to outcomes
  - Reflecting on unintended interactions between the agency of stakeholders and the social structures which constrain them
  - Drawing on existing mid-range sociological and psychological theories
- Project to translation into an operationalisable evaluation framework
- And most importantly, build theory to enable more effective prevention in the future

# Beyond quality evaluation

- Quality has tended to mean “methodological rigour”
- Need a broader frame, to include fitness for purpose, presentation, usefulness and other dimensions (to be further mapped out)

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Relevance</li><li>• Usefulness</li><li>• Done by the right people</li><li>• Potential for scaling up or transferability</li><li>• Evaluated using appropriate methods</li></ul> |  |
|---|--|

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- Based on theory or theories
- Reflective of reality
- Decide what data will be needed to act upon
- Commitment to address problem, even if means developing a suite of interventions
- Presented in a way which is likely to persuade audiences
- Addresses factors which can be manipulated

# Stakeholder-led holistic evaluation

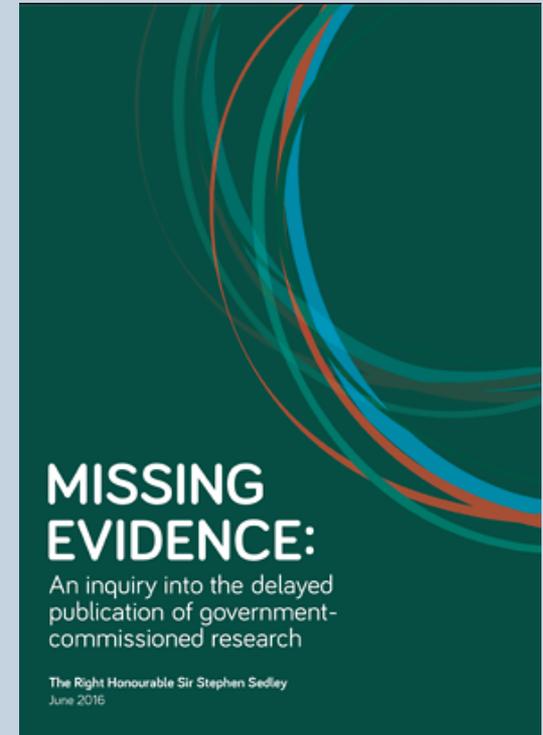
- Bonell says identify theories, components and agents
- Key may be to develop a set of proposed mechanisms through which prevention policies / programmes are expected to work
  - E.g. induce empathy in violent offenders, leading to reduced relapsing
- But this requires input from, and a managed process of collaboration between multiple stakeholders
- Power issues around evaluation – who funds, and owns problems and solutions?
- Who will implement and act on evaluation findings?

# Example: Rape prevention

- Stakeholders may include: rape survivors, offenders, probation workers, justice and legal representatives, families, researchers, pub staff, higher education staff, feminist scholars, .....?
- Process of developing evaluation framework may include
  - Framing 'problem'
  - Identifying resources
  - Committing to 'wanting to know' and selecting outcomes and methods
  - Discussing ownership of problem, research process and solutions
  - Developing and refining (multiple) theories of change
- Realistically, a very challenging process which requires careful consideration of power, agency, rights, ethics and more
- But potentially very rewarding

# Why does this not happen?

- Central government is culturally not very interested in the past
- Expensive, potentially humiliating, politically risky for all involved
- Evaluations not embedded into policy design / are poorly executed
- No training for policy evaluation skills or competencies (unlike policy design)
- Findings not managed well



Adapted from Institute for Government, 2011

# Returning to our questions

1. Do prevention programmes / policies do what they are intended to do?
  - Not always
  - Don't always know
  - Only measure a priori outcomes – to ensure rigour
2. Can we tell why prevention programmes / policies do or do not have the intended effect?
  - Only with luck. Rebooting the evaluation framework can help us to think about mechanisms as well as improving quality of work

# Quality in prevention

- Relevance
- Usefulness
  - Done by the right people
- Potential for scaling up or transferability
- Evaluated using appropriate methods
  - Based on theory or theories
    - Reflective of reality
- Decide what data will be needed to act upon
- Commitment to address problem, even if means developing a suite of interventions
  - Presented in a way which is likely to persuade audiences
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Facilitated  
process with  
relevant  
stakeholders

Effective  
prevention  
+  
Informative  
evaluation

# Considering evaluation

- Evaluation is inherently political process
- Effectiveness, efficiency, equity – these terms imply a technical objective process
- But whole process of evaluation (selection of outcomes, populations, methods) all value-laden choices
- Evaluation methods can tell us part of the policy story...
- ...but always important to reflect on whose story, for what purpose is being told
- Unintended consequences can help us to think about the mechanisms which underpin our policies and interventions – challenging our unspoken assumptions

# Conclusions

- Looking at unintended effects can help us to think about which mechanisms we think are playing out through our policies and programmes
- Clear that theories currently held not always appropriate or adequate
- Raises important questions about what we evaluate and how
- For example, participating in research is not just about effect on population. Broader benefits of being involved in prevention interventions and evaluations, and are a valid part of the story
- Considering broader frame of 'quality' in evaluation may improve prevention policies and research

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&

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