

DECIpher

Development and Evaluation of Complex Interventions for Public Health Improvement
A UKCRC Public Health Research Centre of Excellence



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A Public Health Improvement Research Network in Wales: history and progress

Prof. Laurence Moore
Chris Roberts, Welsh Government

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PHR or PHIR?

- Population Health Intervention Research
- Public Health Improvement Research
- ‘defined by the problem it addresses rather than the disciplines it employs’

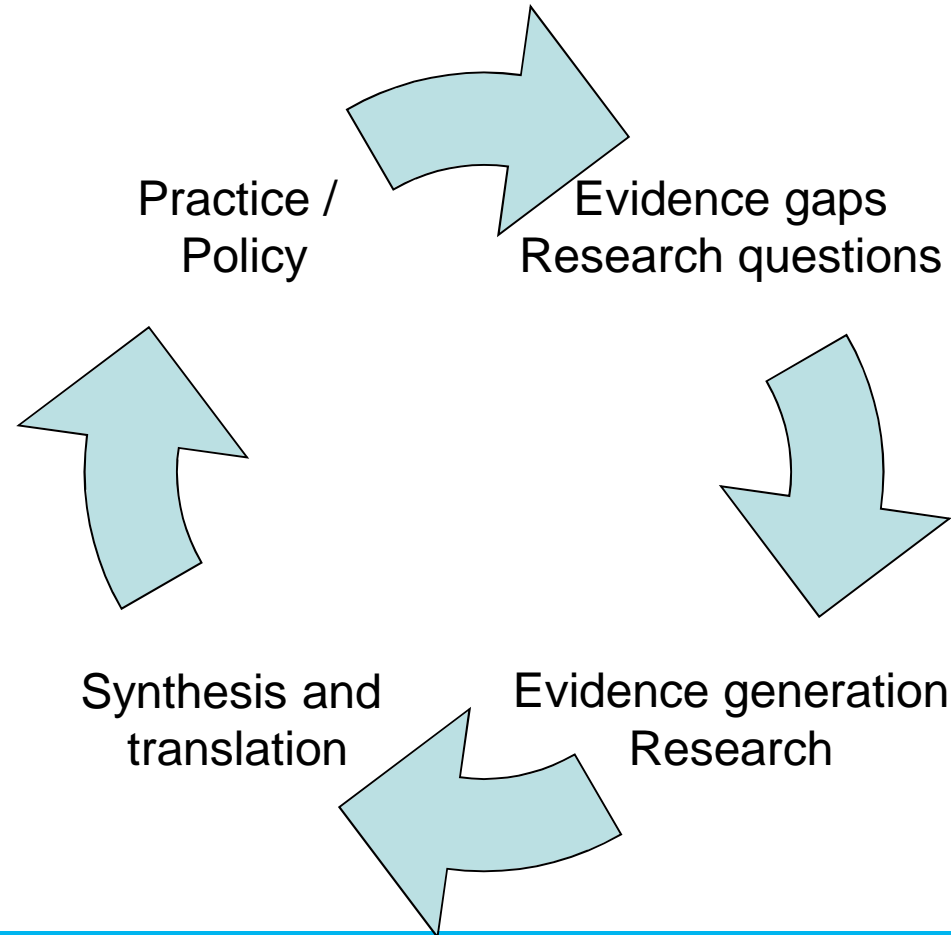
PHIR

- Needs to draw on many disciplines
 - Behavioural sciences
 - Social sciences
 - Geographical sciences
 - Economics
 - Engineering and systems science.....
- Applied multidisciplinary science
- Evaluation / impact focus

Knowledge exchange – generation and translation

- Clinical research
 - Clinical teams
 - Clinicians and clinical researchers co-located
 - Usually the same people!
 - Evidence generation and use integral to training

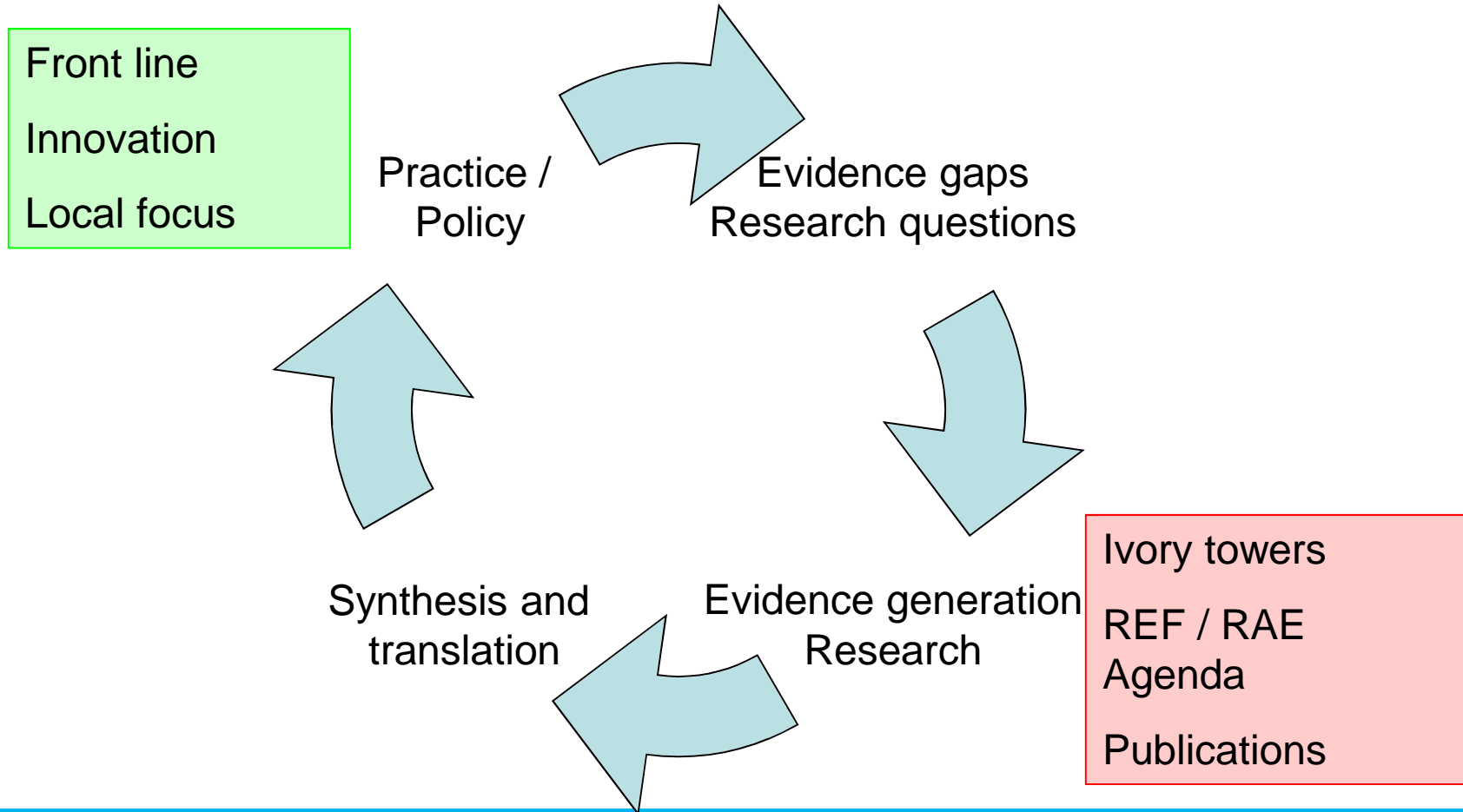
Knowledge Exchange Cycle



Knowledge exchange – generation and translation

- Clinical research
 - Clinical teams
 - Clinicians and clinical researchers co-located
 - Usually the same people!
 - Evidence generation and use integral to training
- Public health
 - Separation of research community from policy/practice (RAE, funding, ivory tower, NHS)
 - Weak intervention research
 - Policy and practice influenced by many factors
 - Access, use, impact of research evidence limited
 - Evaluation threatening
 - Weak evaluation – 5% rule

Knowledge Exchange Cycle



Knowledge translation / broker

- Improve access to evidence
 - Evidence summaries, guidance
 - Targeted, tailored
- Improve skills in evidence appraisal
- Increase individual and organisational use of evidence
- Increase influence of evidence on decisions

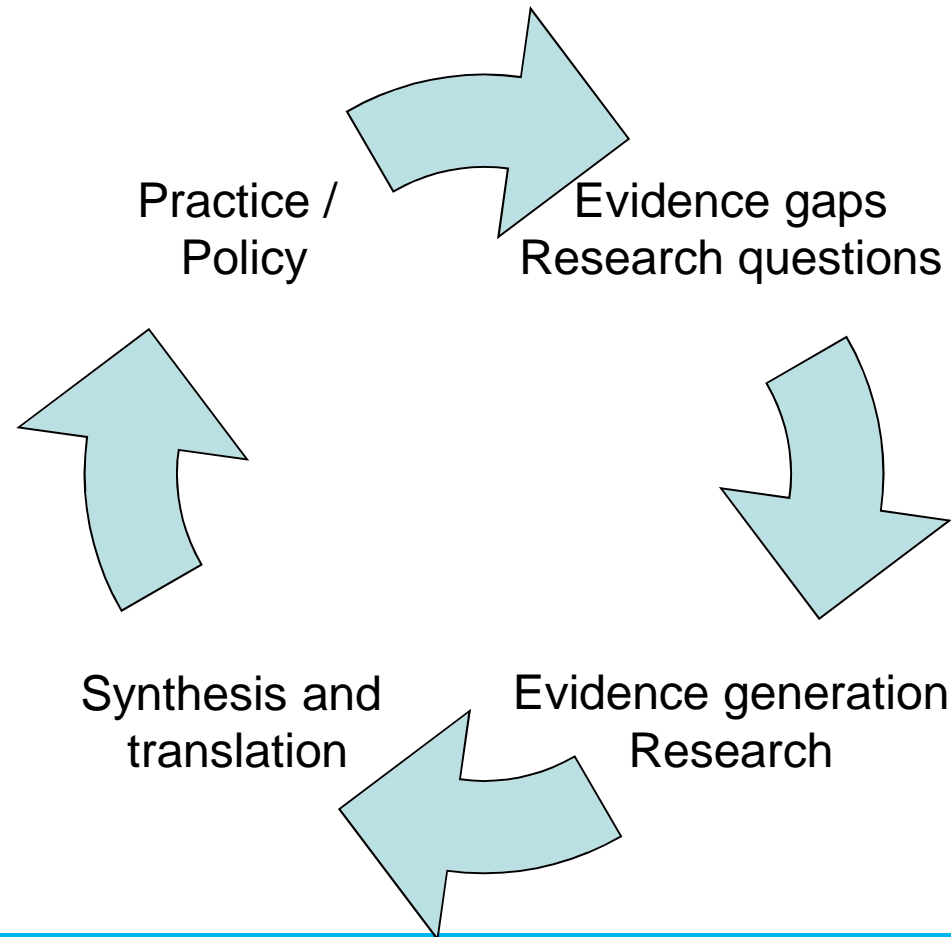
Dobbins et al 2009,
Waters et al

2011

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Knowledge Exchange Cycle



PHIRN

Public
Health
Improvement
Research
Network

PHIRN



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Barriers to high quality evidence generation (2006)

- Clinical NHS research:
 - Trial recruitment
 - Ethics, regulation and governance
 - Infrastructure – staff and CRFs
- Public health intervention research
 - Scale, expense, complexity of interventions
 - Unexploited potential for natural experiments
 - Multidisciplinary, multi-sectoral
 - Outside NHS



- Weaknesses
 - Limited dialogue between or within research, policy and practice communities, no structures
 - Little investment in high quality primary research
 - Opportunities to rigorously evaluate innovations in services not taken
 - Preponderance of low budget, poor quality, ungeneraliseable local evaluation



AIM:

To increase the quantity and quality of public health improvement research in Wales that is relevant to policy and practice

- Break down divide between 'academic' intervention research and 'local' evaluation activity

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A network of academics, policy makers and practitioners

The network facilitates a continuous process of:

- identification and exploration of research priorities
- identification of teams with academic, policy and practitioner representation to take forward priority research projects
- exchange of new evidence, policy developments, practitioner innovation

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- exchange of innovative methodological approaches
- identification of innovations in policy and practice at an early stage in planning, maximizing the opportunities for ‘natural experiments’
- development of high quality research project protocols
- execution of funded research protocols



PHIRN Activities (planned)

- Health Challenge Wales Evidence for Policy Seminar Series
- All Wales Public Health Scientific Conference
- PHIRN Website
 - Membership
 - Database of members, fortnightly email (473 members)
- Electronic discussion group(s)
- RDG project management and support
- Strategic engagement with key PH organisations

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ESRC Festival of Social Science: Policy Trials in Wales

A Public Health Improvement Research
Network in Wales

7th November 2012

Chris Roberts, Health, Social Services and
Children Analytical Team, Welsh Government

Will touch briefly on...

- My role within Welsh Government
- Research infrastructure in Wales
- The role of PHIRN in promoting public health research and informing policy making
- Facilitating factors
- Note – won't say much about work of PHIRN as this will be covered by Laurence

Government Social Research Code: People

The GSR Code: People

www.gsr.gov.uk



The Government Social Research Service (GSR) exists to serve the public through providing the government of the day with high quality, objective, reliable, relevant and timely social science research to inform policy making and delivery. The GSR Code sets out seven key principles that all GSR members must adhere to in order to ensure research and analysis that is scientifically rigorous, relevant and valued.



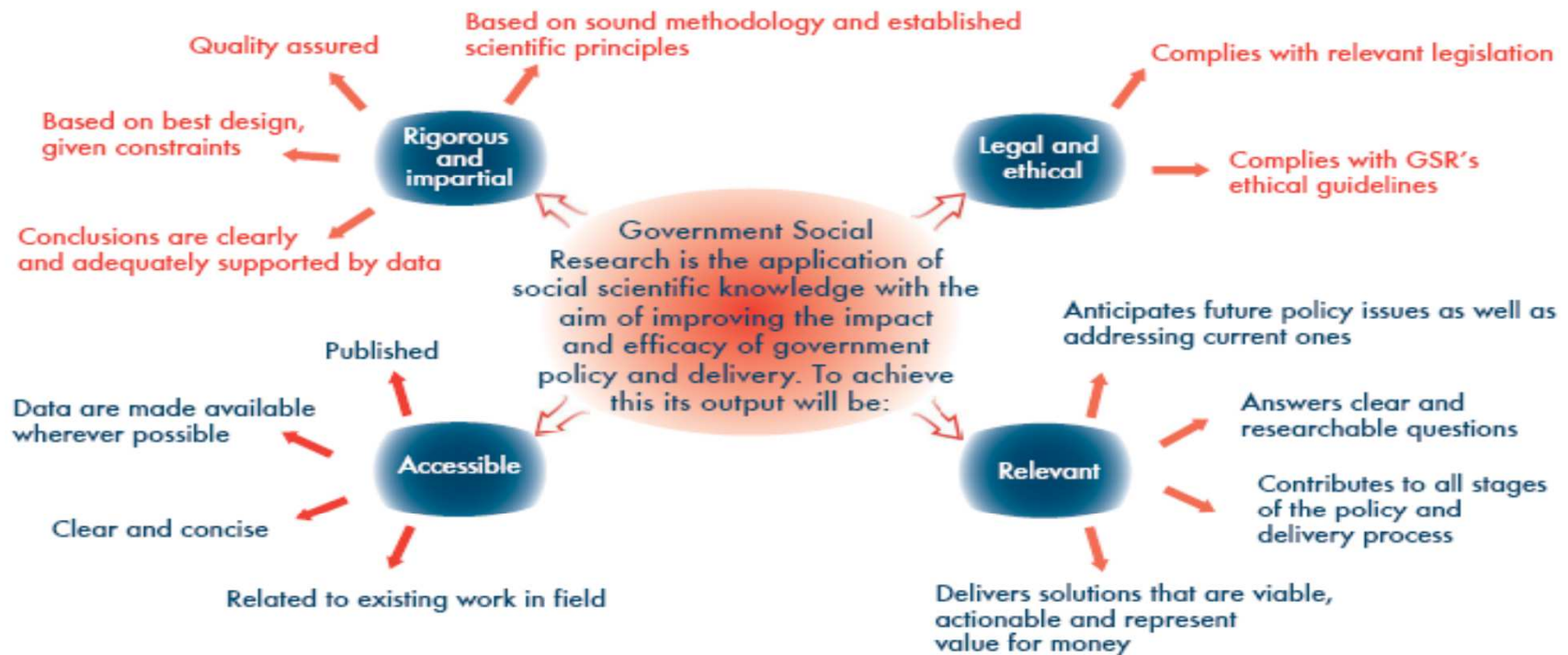
Gwasanaethau Gwybodaeth a Dadansoddi

Knowledge and Analytical Services

Government Social Research Code: Products

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Recent critique by the House of Commons Health Committee (2009)

'Few interventions are rolled-out in ways which permit rigorous evaluation: often they lack clear or measurable goals, baseline information, cost-benefit data, and control or comparison groups' (Macintyre, p28)

'What happens is...we pour large amounts of money into...interventions and end up with rich descriptions...These...are then used as evidence of good practice...and we slide inexorably from setting these things up essentially to the production of propaganda' (Judge, p28).

Research use models

- Early focus in the literature on two-communities explanations for limited use of research to inform policy making.
- Important shift in recent years from science push (technological) and demand pull (economic) models of research use to social interaction models.
- Social interaction models have attempted to integrate explanatory factors into single frameworks (e.g. Landry et al, 2001)
 - Types of research outputs
 - Organisational interests of research users
 - Adaptations of research products
 - Institutional and social linkage mechanisms

Key determinants of research use

- Number of empirical studies have identified key determinants of research use – insights can be used to change practice.
- Summarise under four themes (e.g. Nutley et al., 2007)
 - **Nature of the research to be used** (e.g. quality, credible source, clear, commissioned, timely...)
 - **Personal characteristics of researchers and users** (e.g. policy skills to appraise research, researcher engagement skills, communication skills...)
 - **Links between researchers and users** (e.g. direct links between researchers and policy makers, knowledge brokers...)
 - **Context for research use** (e.g. extent of supportive culture in policy environment, time available to digest research in practice environment or incentive for research organisations to invest in dissemination activity)

Research policy in Wales



NISCHR is the **Welsh Government** body that develops, in consultation with partners, strategy and policy for research in the NHS and social care in Wales.

NISCHR is the Welsh Government body that develops

- ***Improving the R&D infrastructure***
- Reducing bureaucracy
- Investing in the future
- Supporting excellence
- Evidence for success

NISCHR Research infrastructure in Wales

- Development of Welsh infrastructure included commissioning a range of **Registered Research Groups** with the core functions of:
 - generating research proposals in areas of topical significance and opportunity;
 - winning grant funding;
 - generating a growing research portfolio of high-quality, ‘people-focused’ research; and
 - engaging and collaborating with UK-wide groups (*where these exist*)
- Nine RRGs originally established, including PHIRN, rising to 16 covering a range of populations and conditions.
- RRGs work closely with **Infrastructure Support Groups** (e.g. health economics) and **Trials Units** (e.g. South East Wales TU)

Public Health Improvement Research Network (PHIRN) – why funded

- Aims in line with Welsh Government thinking i.e. to increase quality and quantity of public health research with particular emphasis on:
 - prevention; health inequalities; complex interventions in community based settings; behaviour change; children and young people.
- Build on existing collaborative activity between academia, policy and practice to assist with the development, implementation and evaluation of complex interventions.
- Potential to address previously identified need for more intervention research.
- Responsive to key Welsh Government policy priorities
 - Review of Health and Social Care in Wales (2003)
 - Our Healthy Future (2009) and Fairer Health Outcomes for All (2011)
 - Together for Health: A Five Year Vision for the NHS in Wales (2011)
 - Science for Wales: A Strategic Agenda for Science and Innovation in Wales (2012)

Public Health Improvement Research Network (PHIRN) – facilitating factors (i)

- Originally co-funded by NISCHR and Health Improvement Division (CMO's Directorate) so explicit link with analytical and policy colleagues in Welsh Government.
- PHIRN's aim to increase the quality and quantity of public health improvement consistent with evidence-informed approach within Welsh Government.
- Built on existing relationships established over a number of years between academic colleagues in Cardiff University and key policy makers in Welsh Government and practitioners in Wales.
- Active involvement of researchers and policy makers within Welsh Government e.g. opening presentations at PHIRN organised 'Evidence for Policy' seminars, membership of steering groups and general advocacy for the PHIRN approach.

Public Health Improvement Research Network (PHIRN) – facilitating factors (ii)

- Receptive audience within Welsh Government, with shared vision for multidisciplinary approach and methodological pluralism.
- People within Welsh Government (and public health practice) able to negotiate roll out of interventions with policy makers and Ministers to maximise the robustness of evaluation designs.
- Looking for opportunities to share experiences between policy and research environments e.g. linking PhD students to Welsh Government projects.
- Attaching importance to the benefits of face to face contact (alongside virtual forms of networking).

Concluding observations

- Importance of constructive engagement between researchers and policy makers including challenge.
- PHIRN has contributed to policy makers improving their understanding of the strengths/limitations of research...
- ...and to researchers gaining a better appreciation of the policy environment.
- Personal relationships are valuable but PHIRN has helped build institutional relationships which are important given turnover, particularly on the policy side.

PHIRN Activities

- **RDG project management and support**
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Research Development Groups

- Small groups to identify and drive forward collaborative projects
- Multidisciplinary and multisectoral – must include non-academic partner(s)
- Protocol development, including commissioning briefs
- Funding applications
- Organically formed, active
 - 112 set up, 96 bids, 51 funded (£15.8M)

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Health Challenge Wales seminar series

- Health Challenge Wales quarterly seminar series in partnership with Welsh Government.
- Aim: to facilitate interaction, identify RDG topics and disseminate evidence to policy and practice
- Policy leads, innovative practice, cutting edge research
- 18 seminars to date, excellent attendance (n=60) and brought together a large range of participants from policy, practice and research
- Topics inc. social determinants of child health, community development, alcohol misuse, obesogenic environments, school health, tobacco legislation, MI in social care contexts

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HCW seminar series – examples of RDG development

Feasibility study for a licensed premises intervention to reduce alcohol misuse and violent injury

- Background – Seminar attendance, meeting with auditors, previous police collaboration
- Network collaboration - Violence and Society Research Group and CISHE Cardiff University, South Wales Police, Auditors, Local Government
- Type of study - RCT feasibility study
- Funder: Medical Research Council research platform funding call

The role of parents in preventing alcohol misuse: An Evaluation of the Kids, Adults Together Family Forum programme (KATFF)

- Background – Seminar attendance, local innovation highlighted early, on going discussion linking research and policy timetables
- Network collaboration – CISHE, Cardiff University, Gwent Police
- Type of study– Theoretical exploration, acceptability and cultural appropriateness
- Funder: Alcohol Education Research Council



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Do's and Don'ts

- Processes
 - Criteria hard/soft
 - RDGs
- Research Questions
 - All stages, quality
- Co-production
 - through KE cycle
- Capacity building
 - Methodological exp
 - Trials Unit
- Bridging roles key
- Evaluate everything
- Create unnecessary activity
- Meetings
 - Meetings & more meetings
- Stay in your own tent
 - Academic purity
 - Pet project 'threatened' by evaluation
- Ignore the power of data



Strategic engagement with policy and practice – examples of RDG development

Free Schools Breakfasts Initiative

A manifesto commitment but rolled out alongside a WG funded cluster randomised controlled trial. Repeated cross sectional design, 12 month follow up of educational and dietary outcomes and process evaluation for conceptual understanding

- 111 schools across 9 LEAs recruited and randomised in 2 phases as the initiative was rolled out in areas of high / low deprivation (Murphy et al, 2010)

Strengthening Families Programme

Family intervention for 10-14 year olds with emerging substance use risk behaviour

WG funded Pilot of SFP in Cardiff, small process evaluation

WG substance misuse policy

WG fund rollout in 3 areas 2009-2012

MRC NPRI funding (£2M) for rollout in 3 further areas, randomised trial with 2-year outcomes and process and economic evaluation

The National Exercise Referral scheme (NERS)

- Rolled out in 3 phases, first phase (12 LHBs) within a WG funded randomised controlled trial, with nested economic and process evaluations
- 2,160 patients recruited and randomised with 12 month follow up of physical activity and mental health (Murphy et al, 2010)



Policy trials - definition

- Implementation of new policies
- Randomised allocation
- Highly pragmatic-
 - Efficacy, effectiveness, **implementation**
- Real world implementation in real world circumstances using real world resources (staff etc)
- Emphasis on external validity