



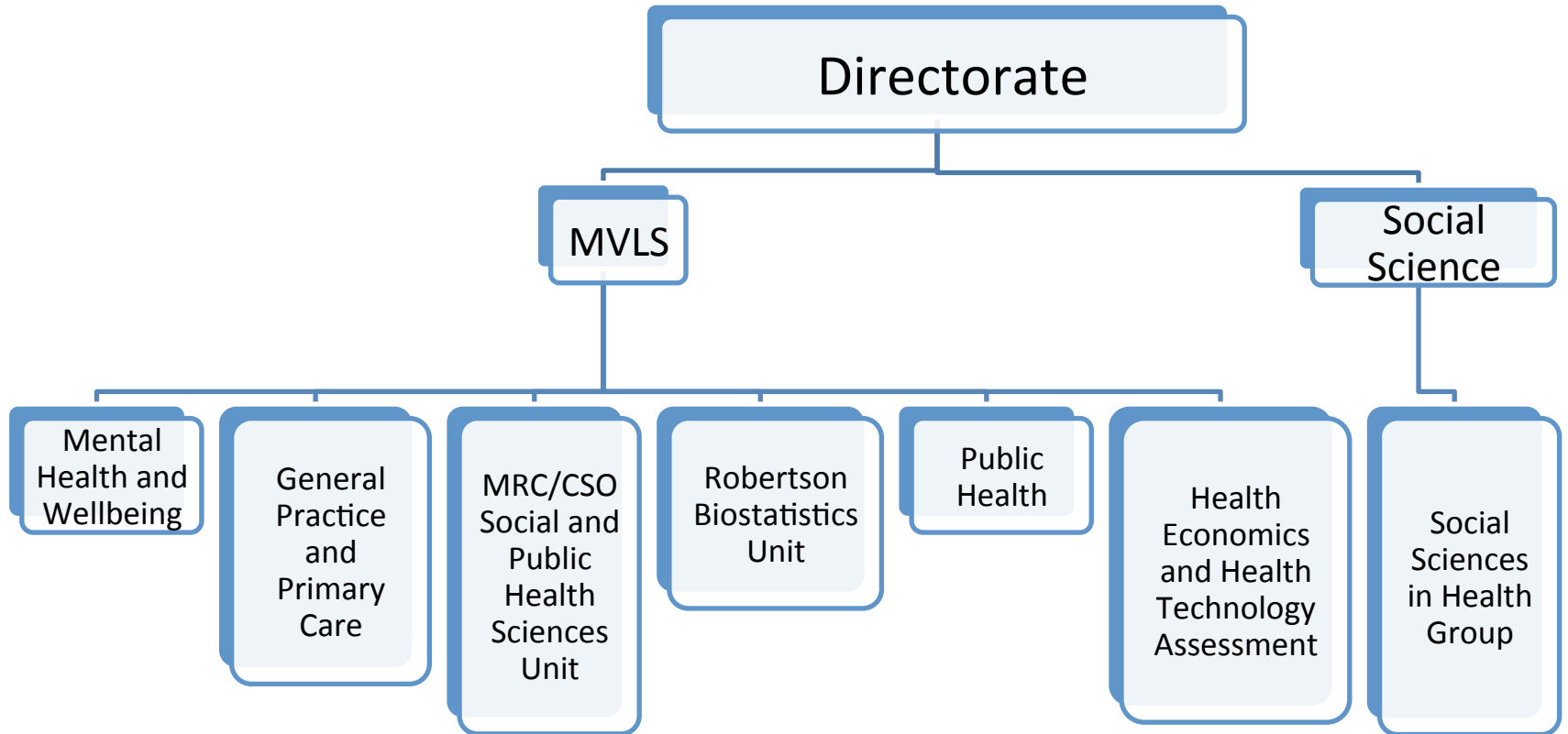
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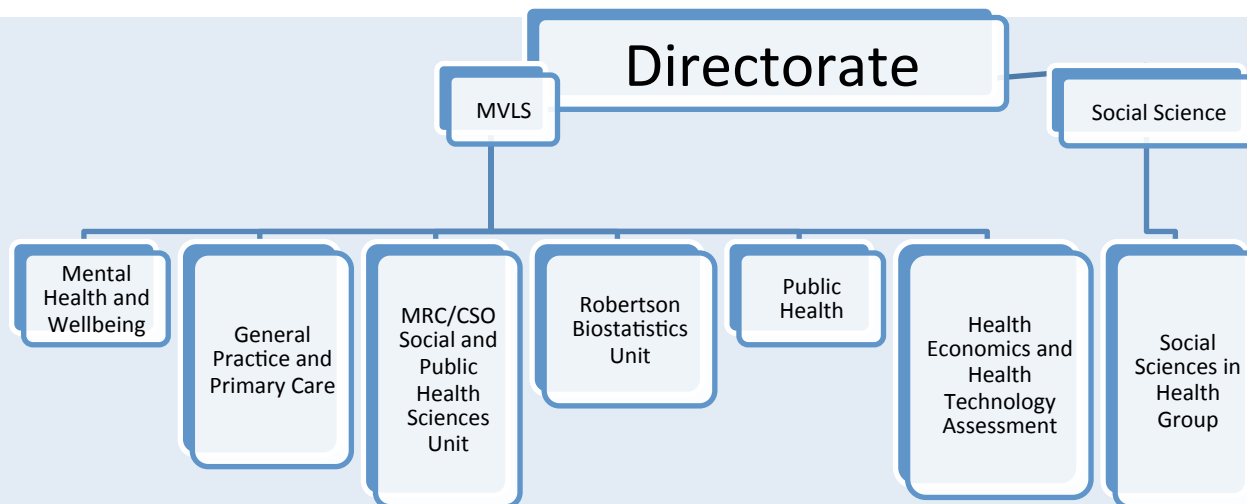
Disease control: how social science research can help

Sally Wyke and Daniel Wight



University of Glasgow | Institute of Health & Wellbeing





Cross cutting themes

Environmental influences on health

Explaining and ameliorating inequalities in health

Perception and impact of health, illness and disability on everyday life

New technologies to enhance health and wellbeing

Development and evaluation of policies and programmes for health

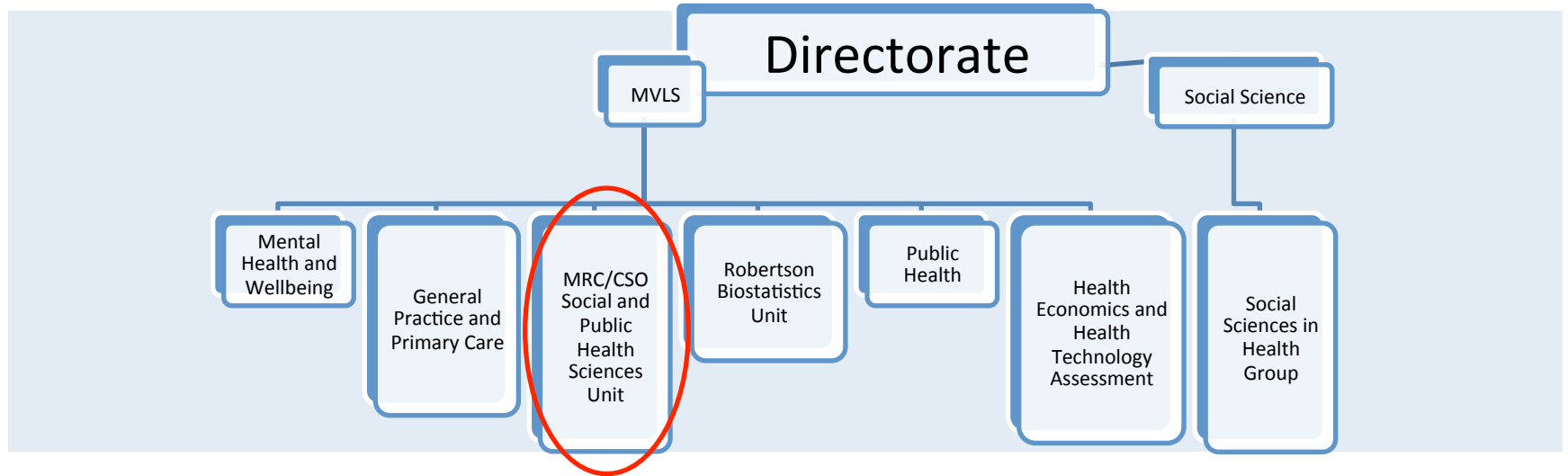
Capitalising on large scale datasets for explanation and evaluation



Mission: To undertake world-leading research and knowledge exchange and provide a stimulating, participative, learning environment to inform policies and practices that ***will promote social justice, improve population health and wellbeing and reduce inequalities in these.***

Understanding: Large-scale datasets to study life course determinants of health, trends in health and its determinants, and the outcomes of policy/environmental changes

Solution focused: The **development and evaluation** of the cost-effectiveness of policies, programmes, therapies, technologies, and practices



MRC /CSO SPHSU perspective on disease control

Daniel Wight

MRC/CSO Social and Public Health Sciences Unit

Aim: promote human health by the study of social, behavioural, economic and environmental influences on health.

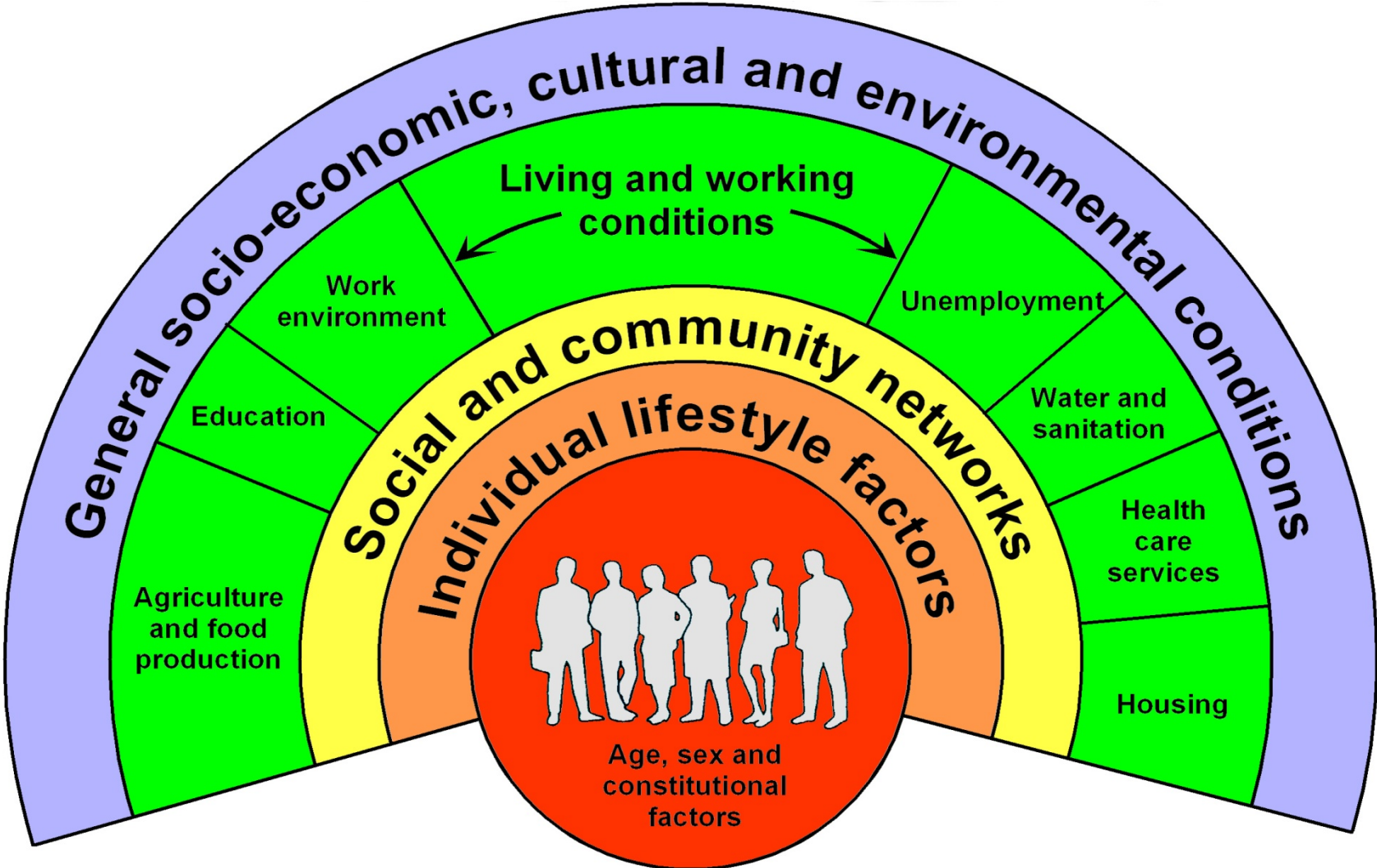
Objectives:

1. study processes through which biological, social, behavioural, economic and environmental factors influence physical and mental health
2. discover mechanisms which can modify these processes
3. develop interventions which harness these mechanisms to improve public health and reduce social inequalities in health
4. evaluate interventions and policies in terms of improved public health and reduced inequalities
5. influence policy and practice by communicating results and implications of research to policy, professional and lay audiences.

To achieve these objectives the Unit will place great value on:

- Increasing our critical mass through integration in University of Glasgow
- Developing strategic interdisciplinary collaborations with the best UK and international scientists
 - e.g. WT Africa Centre, Kwa Zulu Natal
- Establishing interdisciplinary science
 - ‘defined by the problem it addresses rather than the disciplines it employs’

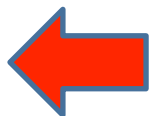
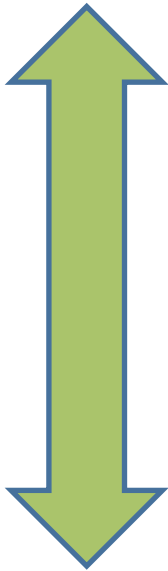
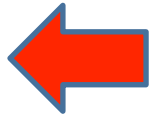
The main determinants of health



Source: Dahlgren and Whitehead, 1991

Socio-Ecological Framework

Levels of change		Components
Macro		Policies, environments and structures
	↕	
Community		Shared identities, relationships, culture
	↕	
Institutional		Rules, regulations, policies and ethos that may promote or endanger health
	↕	
Interpersonal		Interpersonal and group influences such as social networks and social support, family
	↕	
Intrapersonal		Individual characteristics that influence behaviour, e.g. attitudes and beliefs



(McLeroy et al 1988)

Few interventions rigorously evaluated

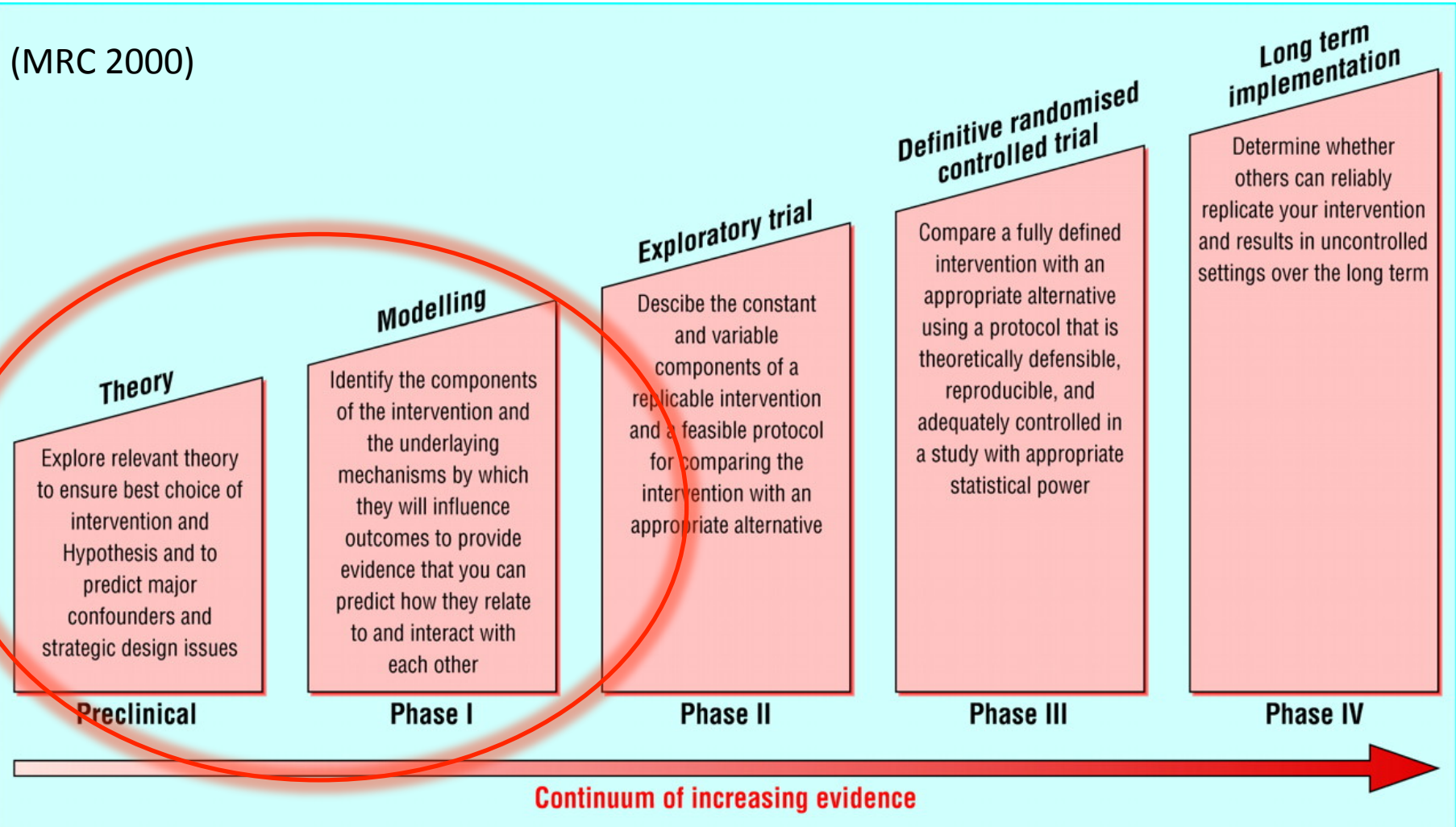
House of Commons Health Committee (2009)

'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).

And need more focus on theory-driven development

(MRC 2000)



Six Steps in Quality Intervention Development (6SQUID)

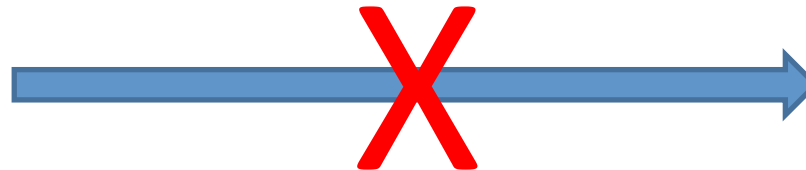
1. Define and understand the problem and its causes
2. Clarify which causal or contextual factors are modifiable and have greatest scope for change
3. Identify how to bring about change (theory of change)
4. Identify how to deliver change mechanism (theory of action)
5. Test and refine the intervention on small scale
6. Collect sufficient evidence of effectiveness to justify rigorous evaluation

Disease control: a (simplified) example of the problem



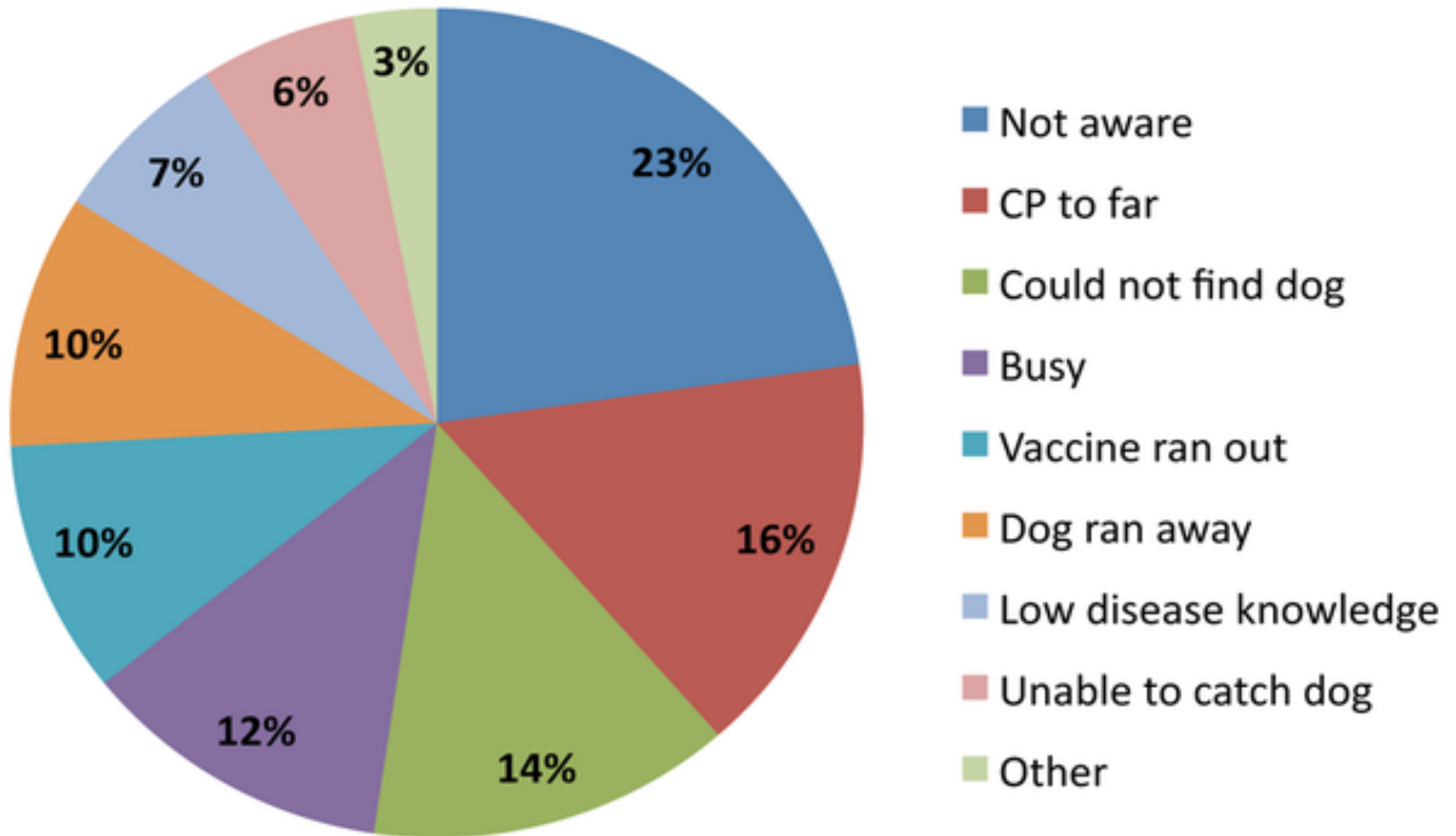
Problem: Bites from dogs main cause of rabies infections in Africa; children most at risk

Solution:
primary
prevention
through dog
vaccination
programme



Outcome:
rabies
eradicated

Reasons given for non-compliance with vaccination in Tanzania



Bardosh K, Sambo M, Sikana L, Hampson K, et al. (2014) Eliminating Rabies in Tanzania? Local Understandings and Responses to Mass Dog Vaccination in Kilombero and Ulanga Districts. *PLoS Negl Trop Dis* 8(6): e2935. doi:10.1371/journal.pntd.0002935
<http://www.plosntd.org/article/info:doi/10.1371/journal.pntd.0002935>

Disease control: a (simplified) example of the problem

Problem: Bites from dogs main cause of rabies infections in Africa; children most at risk

Solution:
primary prevention through dog vaccination programme

Vaccination programme needs to be:

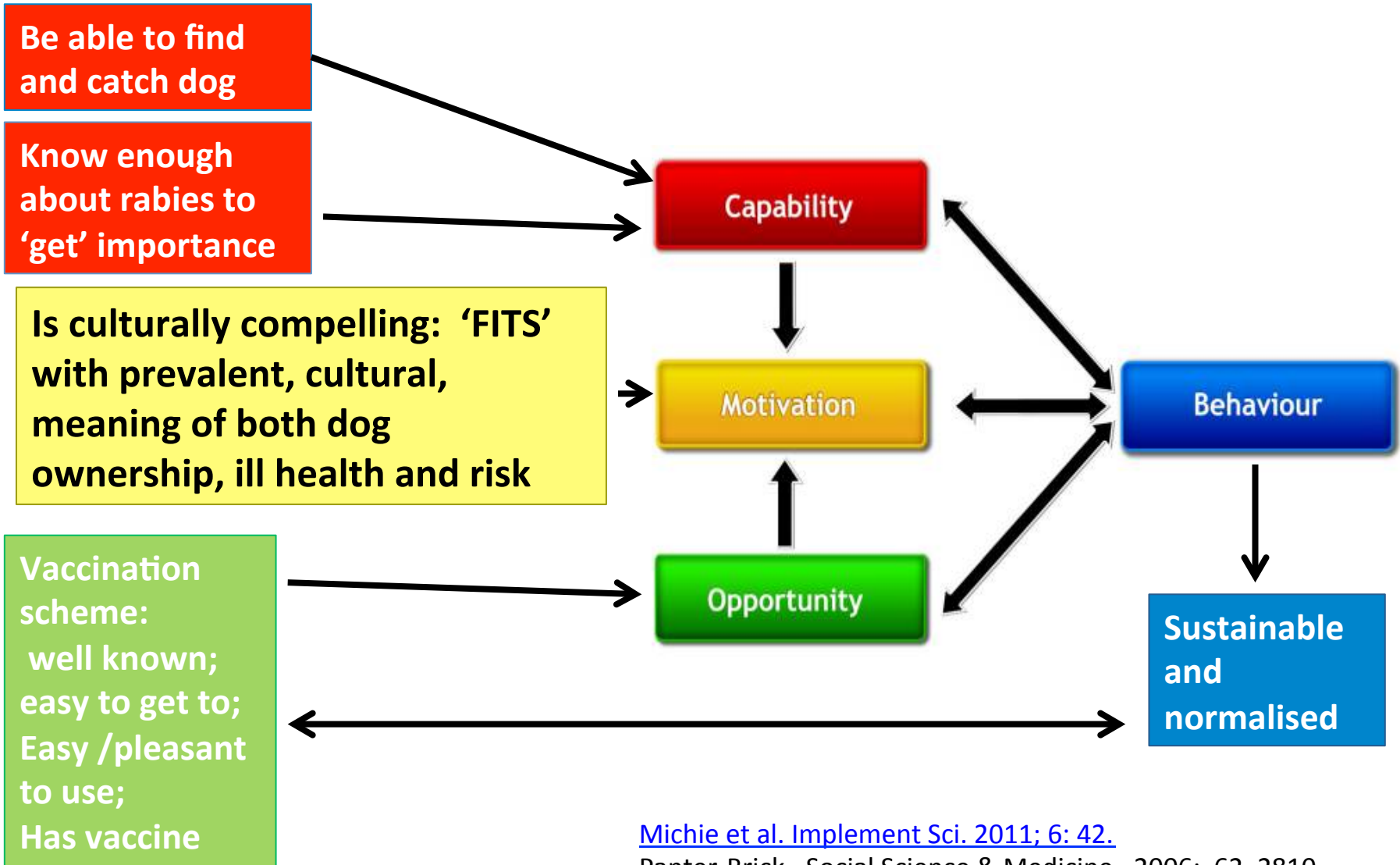
Well organised: enough resources; professional; sustainable

Accessible: time, distance, ease and enjoyment of use; cost

Culturally relevant/compelling:

Outcome:
rabies eradicated

COM-B model ++



[Michie et al. Implement Sci. 2011; 6: 42.](#)

Panther-Brick, Social Science & Medicine. 2006; 62, 2810_

Solutions focussed questions for health social scientists

IF current policies/practices are not conducive to health.....

- How can we engage people in new behaviours (or social practices) that are healthful?
- How can we support the embedding of these practices in routine, everyday, life that are the 'new normal'?

Intervention and Descriptive Research

Descriptive
research

Policy
impact

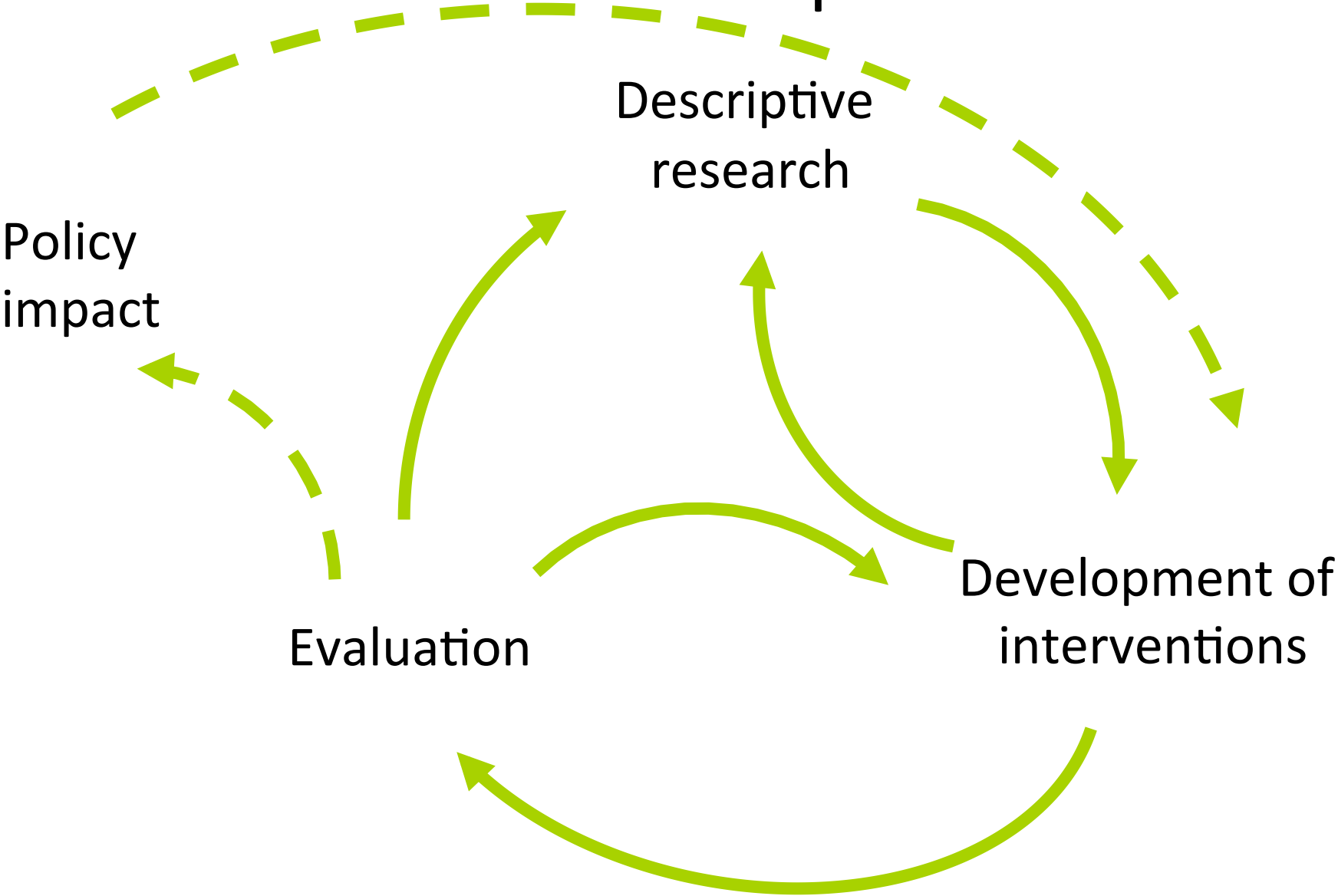


Development of
interventions

Evaluation



Intervention and Descriptive Research



Adolescent sexual health in Tanzania



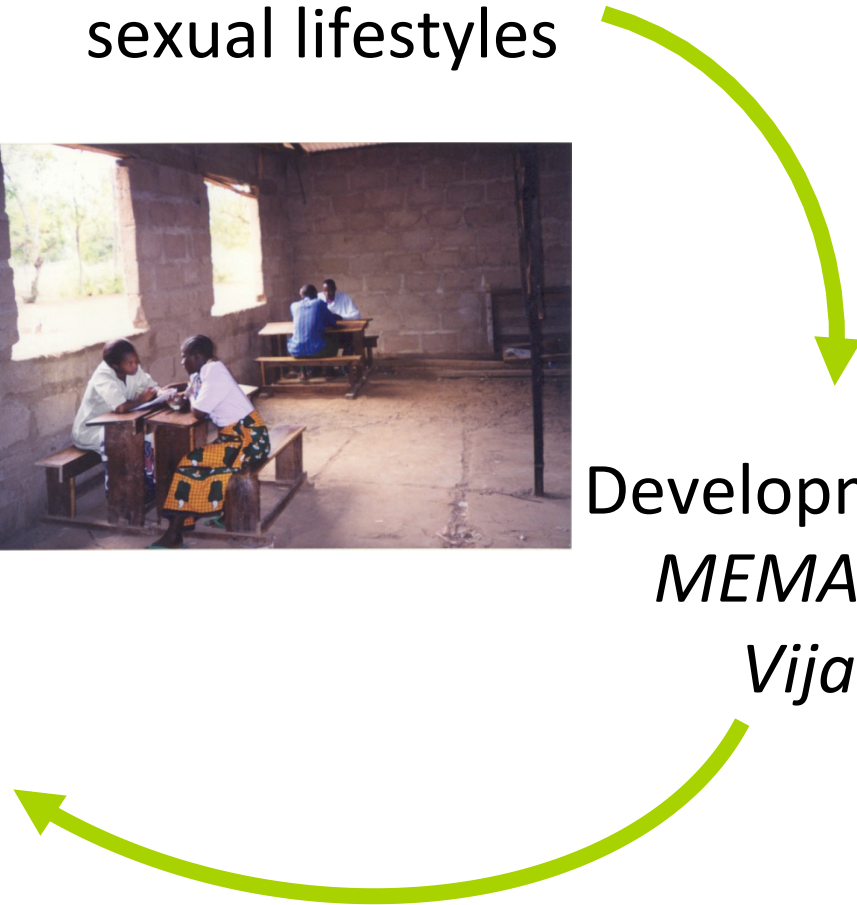
Descriptive research
on young people's
sexual lifestyles



RCT

knowledge +
attitudes +
reported behaviour +
biological outcomes

Development of
*MEMA kwa
Vijana*



Adolescent sexual health in Tanzania

Policy impact
-requirements for mainstreaming
- need for multi-component interventions

Descriptive research
-parent-child relationships
-village dynamics
-perceptions of risk



Development of community intervention



RCT





One example from Scotland

Football Fans in Training: a weight loss and healthy living programme delivered to men aged 35-65 by Scottish Premier League (SPL) football clubs

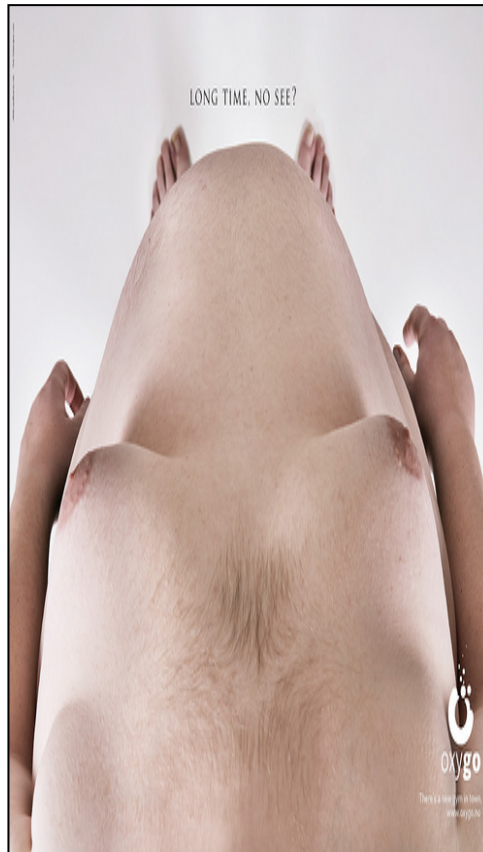


The problem of male obesity

Around 44% of men aged 35-65 years are overweight (34% women)

A further 34% are obese (29% women)

(Scottish Health Survey 2010)



Less than 15% of referrals to commercial sector

(Jebb et al Lancet 2011)

Only 23% of attendees at NHS weight management services

Counterweight Br J Gen Pract 2008)

Many men think slimming and dieting are just “for women” Gough

Soc Sci Med 2007;64(2):326-37

FFIT: Exploiting the 'draw' of football

WELCOME TO THE SCOTTISH PREMIER LEAGUE



Gough Soc Sci Med 2007;64(2):326-37

25/03/2012 21:13:15

Old Firm reaction

Ally McCoist praised his players after Rangers beat Celtic 3-2 at Ibrox on Sunday with goals from Sone Aluko, Andy Little and Lee Wallace to deny their rivals the title for at least

Weight-management for men
through increasing physical
activity and eating a healthier diet

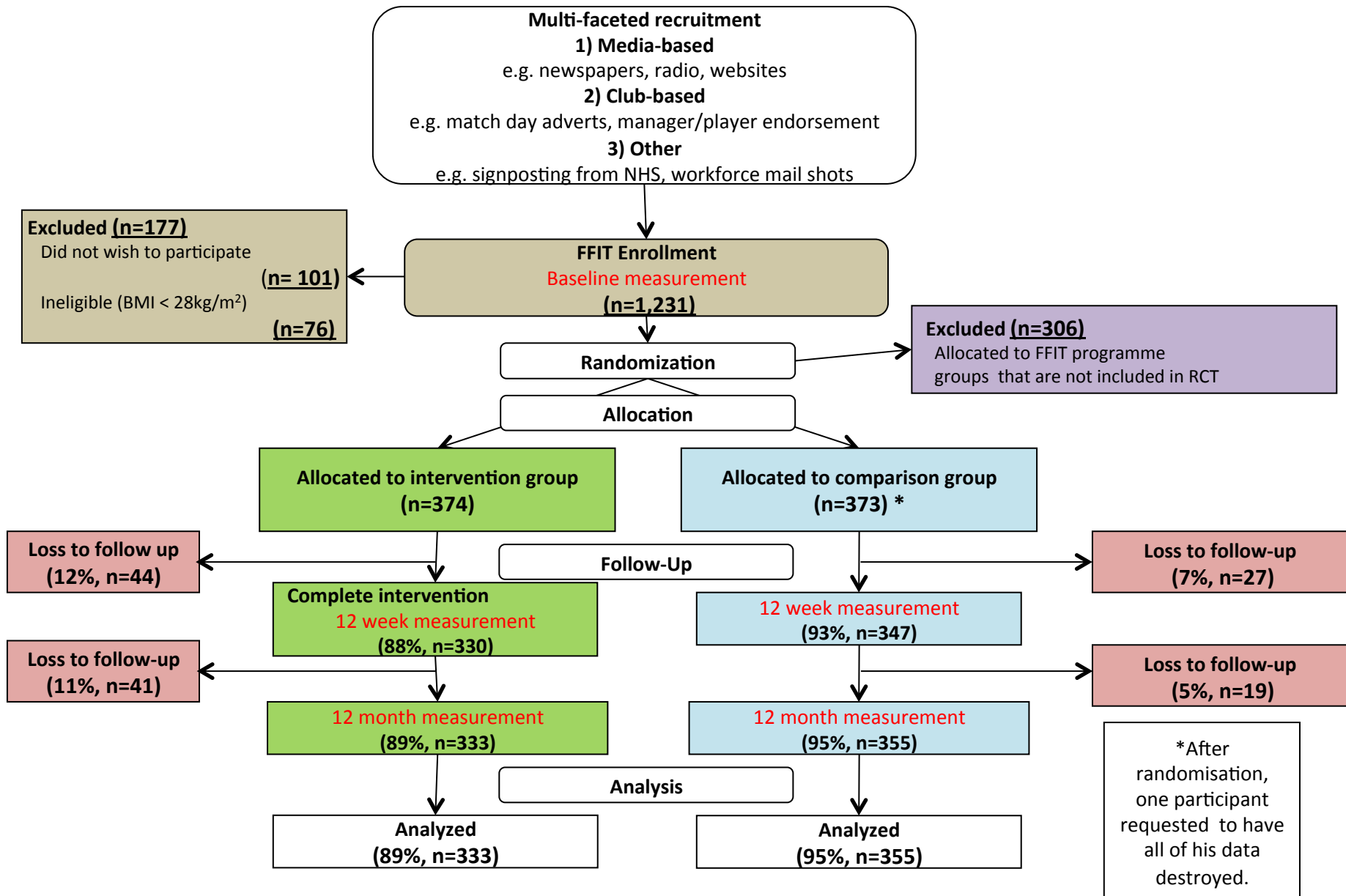
Gender sensitised

Evidence-based

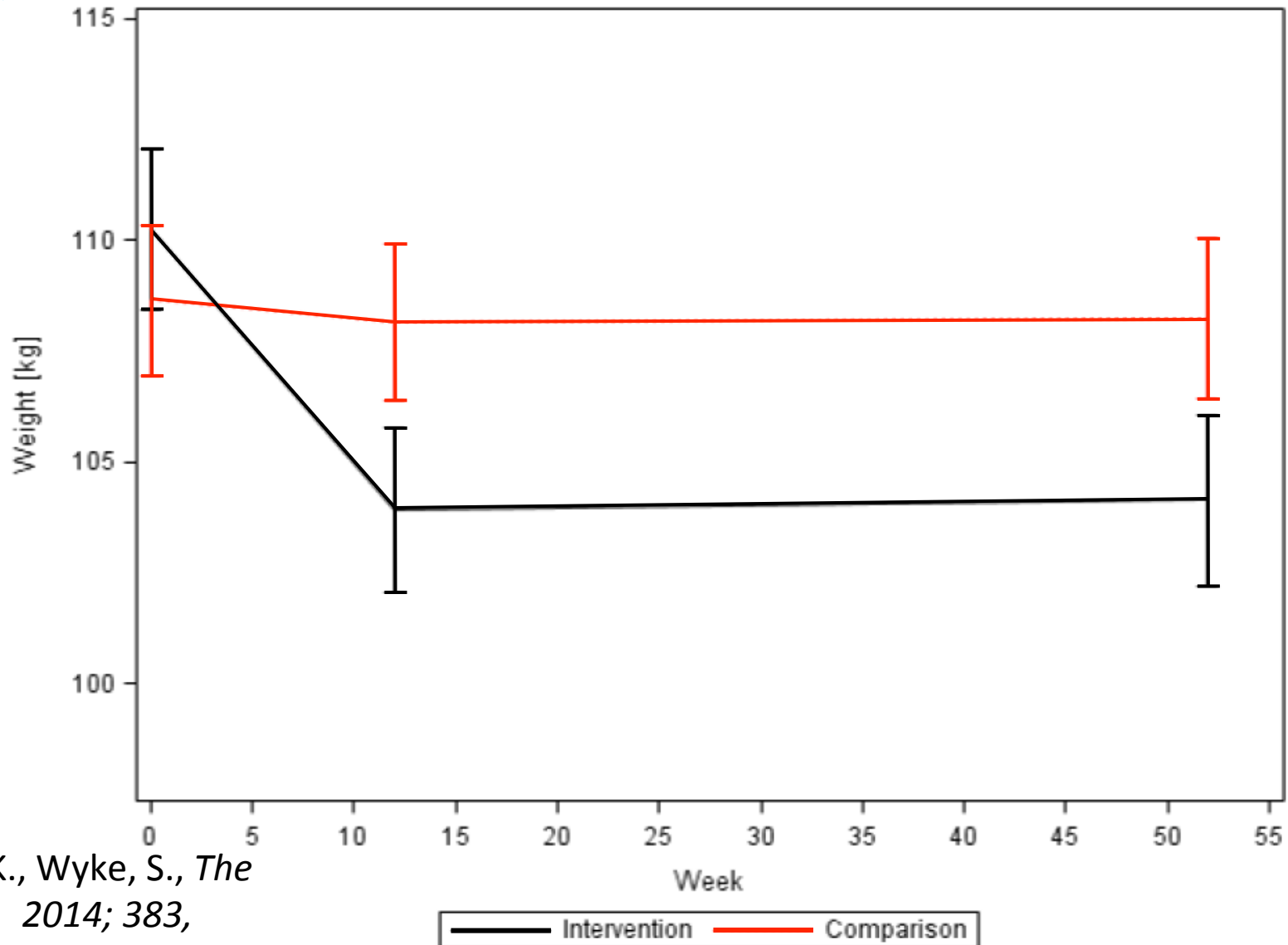
Free of charge, group-based
programme



Randomised Controlled Trial



It worked: weight loss over time



Hunt, K., Wyke, S., *The Lancet*, 2014; 383, 1211-1221.

What makes men want to attend FFIT?



Gray et al, 2013 *Int J Beh Nut and PA*; Hunt et al, 2013, *Health Psychology*

It was culturally compelling



‘Push’ and ‘Pull’: the football setting was a powerful draw

Hibs 12 wk FG P1: I’ve struggled with my weight since, maybe, early-twenties and I’ve tried various diets,, So, when I seen this advertised in the paper ... **I think the main thing that drew us to it was because it’s Hibs. You’re going to be involved at Hibs,**... That was what really attracted me to it.



It was sustained: 'Effervescence' and the renegotiation of identity

Effervescence

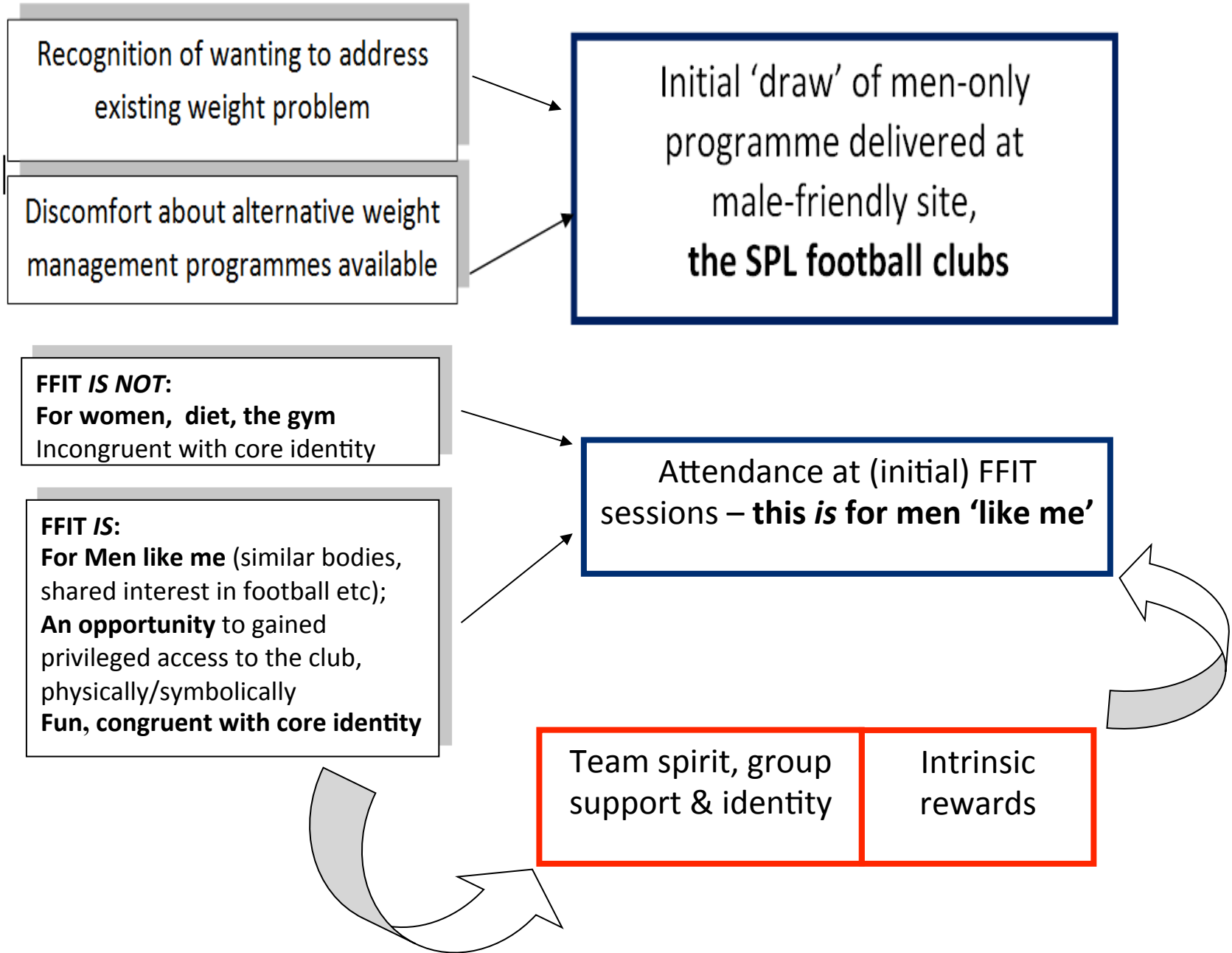
P1: I think [peer] self-encouragement is, we're there, because we're part of a group, we were all encouraging each other. **It's not, you were no longer an individual. You were part of a team**



Renegotiation of identity

D1: It was funny, listening to men but men going on about weighing themselves in the morning and what diet they were on and what they were eating, and, "I had my porridge every morning," and I think and it was good.

Attraction, engagement, maintenance



Disease control: can social science research help?

Need for:

- More rigorous evaluation
- Careful Intervention development
- Interplay between descriptive and intervention research
- Use of socioecological framework
- Interventions that ‘fit’: are culturally compelling and sustainable at individual, community and institutional levels

Let's talk!

Acknowledgements for FFIT research

Thanks to Participants, coaches, MRC/CSO SPHSU Survey Office and Gender and HealthTeam, Tayside Clinical Trials Unit

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Socio-ecological levels and HIV

Levels	Shaping vulnerability	
Macro		
Community		
Institutional		
Inter-personal		
Intra-personal		

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Socio-ecological levels and HIV

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Socio-ecological levels and HIV

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Socio-ecological levels and HIV

Levels	Shaping vulnerability	
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Socio-ecological levels and HIV

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Socio-ecological levels and HIV

Levels	Shaping vulnerability	Shaping prevention/ control
Macro	Economic development and inequalities; Gender; Legislation	Fiscal policy; Gender legislation; ART funding; Research capacity
Community	Religious beliefs; Status concerns & stigma; Sexual culture; Drug culture	Stepping Stones, Gay Heroes, parenting programmes
Institutional	Health services; Police practices; Employment	Training; Governance; Youth friendly health services; HIV/STI testing and treatment
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